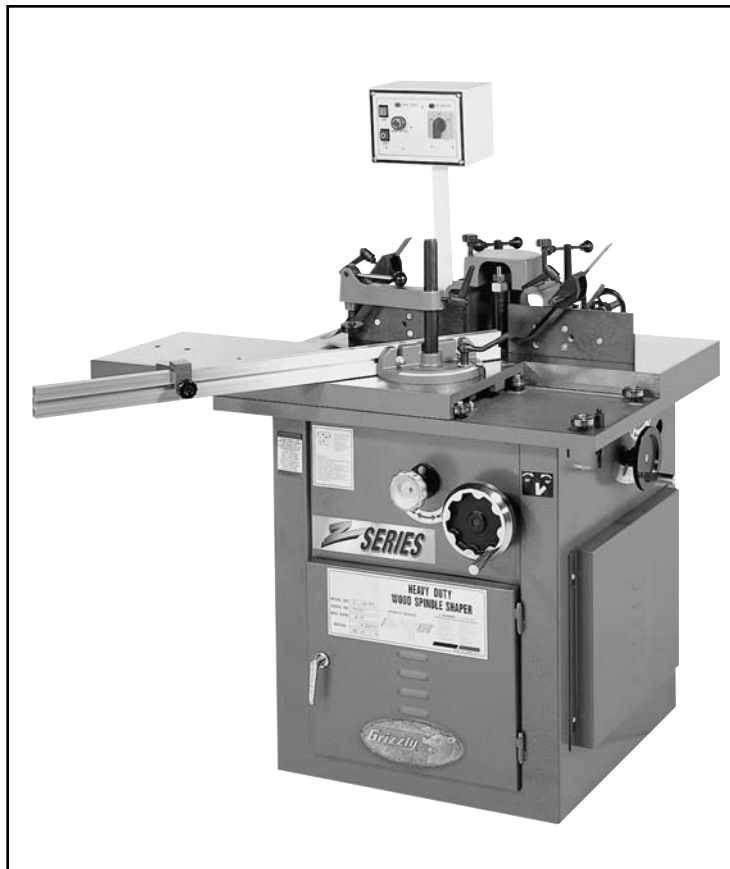


# *Grizzly* *Industrial, Inc.*®

## SLIDING TABLE TILTING SPINDLE SHAPER MODEL G8622 INSTRUCTION MANUAL



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

OCTOBER, 2002. PRINTED IN TAIWAN

#### **ONLINE MANUAL DISCLAIMER**

THE INFORMATION IN THIS MANUAL REPRESENTS THE CONFIGURATION OF THE MACHINE AS IT IS CURRENTLY BEING SHIPPED. THE MACHINE CONFIGURATION CAN CHANGE AS PRODUCT IMPROVEMENTS ARE INCORPORATED. IF YOU OWN AN EARLIER VERSION OF THE MACHINE, THIS MANUAL MAY NOT EXACTLY DEPICT YOUR MACHINE. CONTACT CUSTOMER SERVICE IF YOU HAVE ANY QUESTIONS ABOUT DIFFERENCES. PREVIOUS VERSIONS ARE NOT AVAILABLE ONLINE.

# WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# Table Of Contents

	PAGE
<b>1. SAFETY</b>	
SAFETY RULES FOR ALL TOOLS .....	2-3
ADDITIONAL SAFETY INSTRUCTIONS FOR SHAPERS .....	4
<b>2. CIRCUIT REQUIREMENTS</b> .....	5
220V OPERATION .....	5
GROUNDING .....	5
EXTENSION CORDS .....	6
WIRING.....	6
<b>3. GENERAL INFORMATION/COMMENTARY</b> .....	7
UNPACKING .....	8-9
CLEAN UP .....	10
SITE CONSIDERATIONS.....	10
<b>4. ASSEMBLY</b> .....	11
BEGINNING ASSEMBLY .....	11
HANDWHEEL .....	11
SPINDLES .....	12
HANDLES .....	13
GUARD .....	14
FENCE ASSEMBLY .....	14-15
GUARD COVER .....	15
HOLD-DOWNS .....	16
MITER ASSEMBLY .....	16-17
<b>5. ADJUSTMENTS</b> .....	18
PULLEYS & V-BELT .....	18
V-BELT TENSION .....	19
SPEED CHANGES .....	19
FENCE ADJUSTMENT.....	19
ALIGNING THE FENCE .....	20
SETTING MITER GAUGE .....	20
TILTING SPINDLE .....	21
TABLE INSERT .....	21
TEST RUN .....	22
<b>6. OPERATION</b> .....	23
ROTATION .....	23
CUTTER INSTALLATION.....	24
TABLE LOCK .....	24
SPINDLE HEIGHT .....	25
STRAIGHT SHAPING .....	25-26
RUB COLLARS.....	27
PATTERN WORK .....	28-29
FREEHAND SHAPING .....	29
MITER ASSEMBLY .....	29-30
SHAPER ACCESSORIES .....	30
<b>7. MAINTENANCE</b> .....	31
GENERAL .....	31
TABLE.....	31
LUBRICATION .....	31
V-BELT .....	31
SCHEDULE.....	31
WIRE DIAGRAM.....	32
<b>8. CLOSURE</b> .....	33
MACHINE DATA.....	34
PARTS BREAKDOWN AND PARTS LISTS .....	35-41
WARRANTY AND RETURNS .....	42

# SECTION 1: SAFETY

## **WARNING**

### **For Your Own Safety Read Instruction Manual Before Operating This Equipment**

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.



This symbol is used to alert the user to useful information about proper operation of the equipment.

## **WARNING**

### **Safety Instructions For Power Tools**

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **NEVER USE IN DANGEROUS ENVIRONMENT.** Do not use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
5. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
6. **MAKE WORKSHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
7. **NEVER FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Do not force tool or attachment to do a job for which it was not designed.

# WARNING

## Safety Instructions For Power Tools

- 9. USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

AMP RATING	LENGTH		
	25ft	50ft	100ft
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

- 10. WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
- 13. NEVER OVERREACH.** Keep proper footing and balance at all times.

- 14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.
- 16. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
- 17. USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- 18. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 19. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Do not leave tool until it comes to a complete stop.
- 20. NEVER USE UNDER THE INFLUENCE** of alcohol or drugs, or when tired.
- 21. NEVER ALLOW UNSUPERVISED OR UNTRAINED PERSONNEL TO OPERATE THE MACHINE.** Make sure any instructions you give in regards to the operation of the machine are approved, correct, safe, and clearly understood.

## **WARNING**

# Additional Safety Instructions For Shapers

1. **NEVER ALLOW YOUR HANDS** to come within 12 inches of the cutters. Never pass your hands directly over or in front of the cutter.
2. **BLIND CUT WHENEVER POSSIBLE.** This keeps the knives on the underside of the workpiece and provides a distance guard for the operator.
3. **WHEN SHAPING CONTOURED WORK** and using a rub collar, **NEVER** start out at a corner. See the “Rub Collar” instructions further on in the manual.
4. **WITH THE MACHINE UNPLUGGED,** always rotate the spindle by hand with any new setup to ensure proper cutter clearance before starting the machine.
5. **DO NOT SHAPE STOCK SHORTER** than 12 inches without special fixtures or jigs. Where practical, shape longer stock and cut to size.
6. **NEVER ATTEMPT** to remove too much material in one pass. You are far more likely to enjoy safer and higher quality results if you allow the cutter to remove material in multiple passes.
7. **THE DANGER OF** kickback is increased when the stock has knots, holes, or foreign objects in it. Warped stock should be run through a jointer before attempting to run it through a shaper.
8. **KEEP THE UNUSED PORTION** of the cutter below the table surface.
9. **THE USE OF PUSH STICKS** as safety devices in some applications is smart; in others it can be quite dangerous. If the push stick comes in contact with the cutter on the end grain, it can fly out of your hand like a bullet—potentially causing serious injury. We recommend using some type of fixture, jig, or hold-down device as a safer alternative. Always use the guard as described in the manual.
10. **NEVER FORCE MATERIALS** through the shaper. Let the cutters do the work. Excessive force is likely to result in poor cutting results and will cause dangerous kick-back conditions.
11. **ALWAYS** ensure that the cutters, fence, and spindle elevator knob have been tightened properly before beginning any operation.
12. **ALWAYS** feed the work toward the cutters in the direction opposite of the cutter rotation. Also, using and maintaining a sharp cutterhead will greatly reduce the chance of kickback.
13. **NEVER REACH BEHIND CUTTER** to grab the workpiece. Your hand may suddenly be pulled into the cutter in the event of a kickback.
14. **IF AT ANY TIME YOU ARE EXPERIENCING DIFFICULTIES PERFORMING THE INTENDED OPERATION, STOP USING THE SHAPER!** Then contact our service department or ask a qualified expert how the operation should be performed.

## **WARNING**

Like all power tools, there is danger associated with shapers. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

## **CAUTION**

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment or poor work results.

# SECTION 2: CIRCUIT REQUIREMENTS

## 220V Operation

The Model G8622 Shaper is furnished with a 3450 R.P.M., 5 H.P., Single-Phase 220V motor, push-button ON/OFF magnetic starter switch, FORWARD/REVERSE switch and a cord set. Under normal use, the motor draws approximately 25 amps @ 220V. We recommend a 30 amp circuit breaker. If frequent circuit failures occur when using the shaper, contact our service department.

The shaper motor must be connected to its own dedicated 30A circuit, including wires rated for 30 amps and a 30 amp circuit breaker. It should not share a circuit with any other machine. A standard 2-pole breaker is necessary for use with the shaper.

We recommend using a NEMA-style L6-30 plug and outlet similar to that in **Figure 1**. You may also “hard-wire” the shaper directly to your panel, provided you place a disconnect near the machine. Check the electrical codes in your area for specifics on wiring requirements.

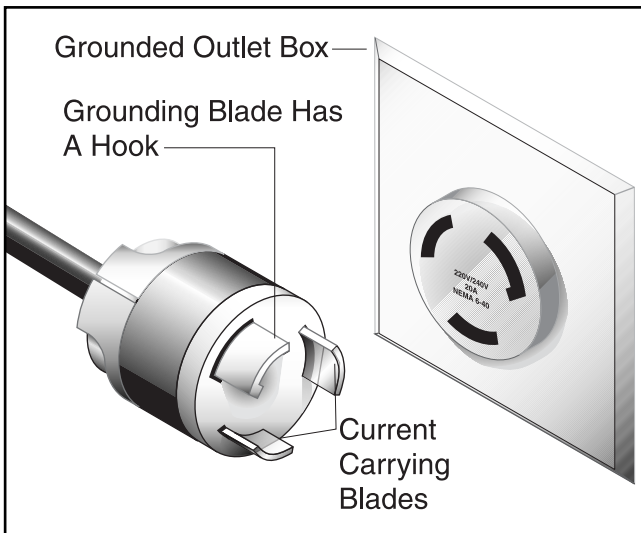



Figure 1. 220V Single-Phase



## Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing electric current a path of least resistance to disperse electricity. This tool is equipped with an electric cord that has an equipment-grounding conductor which must be properly connected to a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connections of the electrical-grounding conductor can result in the risk of electric shock. The conductor with green or green and yellow striped insulation is the electrical-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

	<p><b>⚠ WARNING</b></p> <p>This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. Under no circumstances should the grounding pin from any three-pronged plug be removed. Serious injury may occur.</p>
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# Extension Cords

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We do not recommend the use of extension cords on 220V equipment. It is much better to arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords. Should it be necessary to use an extension make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in **Section 1: Safety** to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.



# Wiring

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A wiring diagram is provided at the back of this manual should it be necessary to repair or revise the wiring. Always utilize a qualified electrician when doing any electrical work on this equipment.

## CAUTION

**We have covered some basic electrical requirements for the safe operation of your machine. These requirements are not necessarily comprehensive. You must be sure that your particular electrical configuration complies with local and state codes. Ensure compliance by checking with your local municipality or a licensed electrician.**





# SECTION 3: GENERAL INFORMATION

## Commentary

Grizzly Industrial, Inc. is proud to offer the Model G8622 Shaper. This shaper is part of Grizzly's growing family of fine woodworking and metal-working machinery. When used according to the guidelines stated in this manual, you can expect years of trouble-free, enjoyable operation.

The Model G8622 Sliding Table Tilting Spindle Shaper is intended for heavy-duty professional use; it features a 5 H.P. single-phase motor, 220V operation with magnetic power switching and full reversing capabilities. The Model G8622 also features a precision-ground cast iron table, hold-down springs, three interchangeable tilting spindles, and a sliding table w/clamping miter gauge. This shaper is capable of operating at four spindle speeds: 3600, 5100, 8000 and 10,000 R.P.M., giving you a versatile shaper with plenty of power.

A number of optional accessories for the Model G8622 are available. Please refer to the current Grizzly catalog for more information.

We are also pleased to provide this manual with the Model G8622. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you feel we should address in our next printing, please write to us at the address below:

Grizzly Industrial, Inc.  
% Technical Documentation  
P.O. Box 2069  
Bellingham, WA 98227

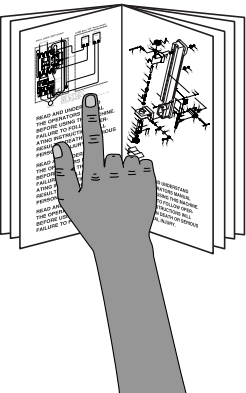
Most important, we stand behind our machines. We have an excellent service department at your disposal should the need arise. If you have any service questions or parts requests, please call or write to us at the location listed below.

Grizzly Industrial, Inc.  
2406 Reach Road  
Williamsport, PA 17701  
Phone:(570) 546-9663  
Fax:(800) 438-5901  
E-Mail: techsupport@grizzly.com  
Web Site: <http://www.grizzly.com>

Address after fall 2001:

Grizzly Industrial, Inc.  
1203 Lycoming Circle  
Pennsdale, PA 17756

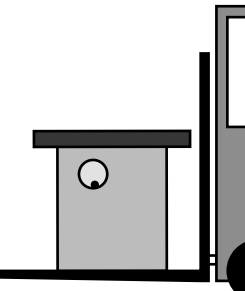
The specifications, drawings, and photographs illustrated in this manual represent the Model G8622 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, we urge you to insert the new information with the old and keep it for reference.

	<p><b>!WARNING</b></p> <p><b>Read the manual before assembly and operation. Become familiar with the machine and its operation before beginning any work. Serious personal injury may result if safety or operational information is not understood or followed.</b></p>
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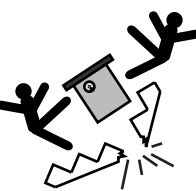
# Unpacking

The Model G8622 Shaper is shipped from the manufacturer in a carefully packed carton. If you discover the machine is damaged after you have signed for delivery, and the truck and driver are gone, you will need to file a freight claim with the carrier. Save the containers and all packing materials for possible inspection by the carrier or its agent. Without the packing materials, filing a freight claim can be difficult. *If you need assistance determining whether you need to file a freight claim, or completing the procedure to file one, please contact our Customer Service.*



**⚠️ WARNING**

The G8622 is a heavy machine, 770 lbs. shipping weight. **DO NOT over-exert yourself while unpacking or moving your machine – you will need assistance and power equipment. Serious personal injury may occur if safe moving methods are not followed.**



**⚠️ WARNING**

If moving this machine up or down stairs, the machine must be dismantled and moved in smaller pieces. Make sure the stairs are capable of supporting the combined weight of the machine parts and the people moving them.

When you are completely satisfied with the condition of your shipment, you should inventory its parts.

After all the parts have been removed from the carton, you should have:

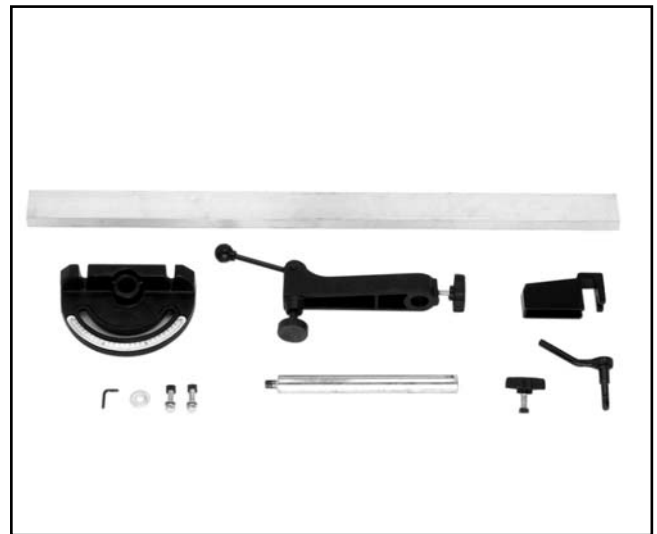
- Shaper Unit (**Figure 2**)
- Miter Gauge Kit (**Figure 3**)
- Hardware (**Figure 4**)



**Figure 2.** Shaper base unit.

### The Miter Gauge Kit Hardware and Qty:

Miter Gauge	1
Fence	1
Clamping Unit	1
Support Fence	1
Push Shaft	1
Pointer	1
Washer	1
Bolts	2
Threaded Knob	1
Special Nuts	3
Ratchet Handle	1



**Figure 3.** Miter Gauge Kit.

**The Model G8622 Hardware and Qty:**

3/4" Spindle	1
1" Spindle	1
1 1/4" Spindle	1
3/4" Spindle Nut	2
1" Spindle Nut	2
1 1/4" Spindle Nut	2
Spacer Set	18
Hold-Downs	2
Hold-Down Bars	2
Hold-Down Brackets	2
Fence Pieces	2
Fence Mounts	2
Dust Port	1
Safety Guard	1
Multi Wrench 10, 19, 23, 26, 37mm	1
3mm Allen® Wrench	1
4mm Allen® Wrench	1
1 1/2" Box Wrench	1
1" Box Wrench	1
Stainless Wheel Handles	2
Round Knobs	4
Plastic Adjustment Wheels	2
4 7/8" Threaded Stud Knobs	2
4" Double Threaded-End Bars	2
Draw Bar w/Nut	1
Shaft Guide Bar w/Setscrew	2
Fence-Bracket Adjustment Handles	2
Adjustment Guide Bar	2
5/16" Lock Washers	6
5/16"-18 x 1 5/16" Flat Head Screws	7
5/16" Flat Washers	8
1/2" Flat Washers	4
5/16" Hex Nuts	6



**Figure 4.** Shaper hardware.


In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.

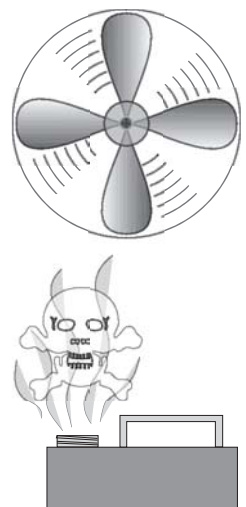


# Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose for clean up.

	<p><b>! WARNING</b> Do not use gasoline or other petroleum-based solvents to clean with. They have low flash points which make them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur.</p>
---	--

	<p><b>! WARNING</b> Do not smoke while using solvents. A risk of explosion or fire exists and may result in serious personal injury.</p>
---	--

	<p><b>! CAUTION</b> Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards.</p>
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# Site Considerations

## FLOOR LOAD

Your Model G8622 Shaper represents a moderately large weight load in a small footprint. Most commercial shop floors will be adequate for the 770 lb. weight of the Model G8622. Some floors may require additional support. Contact an architect or structural engineer if you have any question about the ability of your floor to handle the weight.

## WORKING CLEARANCES

Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine, and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely run your machines in any foreseeable operation.

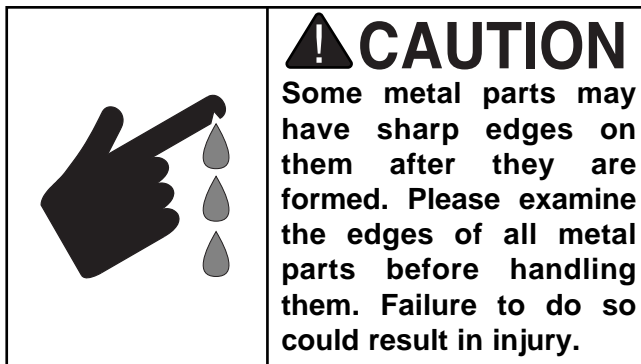
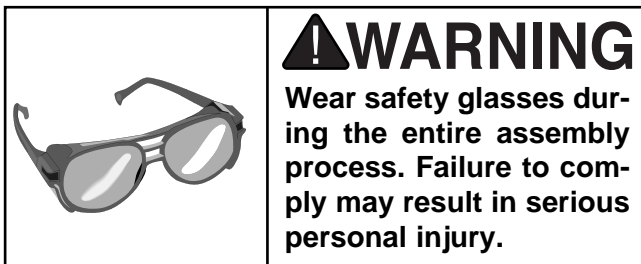
## LIGHTING AND OUTLETS

Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle combined motor amp loads. Outlets should be located near each machine so power or extension cords are not obstructing high-traffic areas. Be sure to observe local electrical codes for proper installation of new lighting, outlets, or circuits.

	<p><b>! CAUTION</b> Make your shop "child safe." Ensure that your workplace is inaccessible to children by closing and locking all entrances when you are away. Never allow visitors in your shop when assembling, adjusting, or operating equipment.</p>
--	---



# SECTION 4: ASSEMBLY



## Beginning Assembly

Most of your Model G8622 Shaper has been assembled at the factory, but some parts must be assembled or installed after delivery. We have organized the assembly process into steps. Please follow along in the order presented in this section.



## Switch Pedestal

Turn the switch pedestal upright to install it on the back of the shaper. Have another person hold it in place, then reach inside and thread the nuts onto the bolts.



## Handwheel

The handwheel, pre-installed at the factory, is made of cast iron. It is used to raise and lower the spindle to accommodate the height required by your cutter.

Thread the crank handle onto the handwheel and tighten with a 12 mm wrench.



Figure 5. Handwheel mounted to shaper.



# Spindles

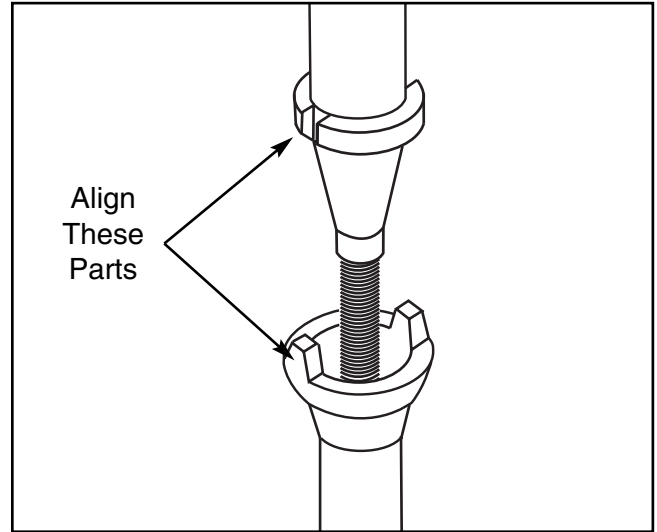
The Model G8622 comes with 1¼", 1", & ¾" spindles like those in **Figure 6**. The spindles must be inserted correctly and remain stable in order to produce quality work. When installing and changing spindles, make sure the spindle seats snugly and that there is enough drawbar threaded into the bottom of the spindle to safely secure it in place. To install a spindle:

1. You should not have your machine connected to a power source at this time. If you do, **UNPLUG** it before you begin.



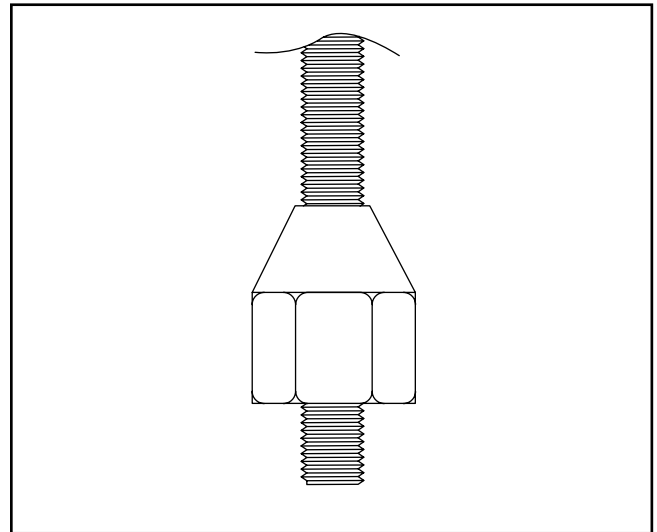
**Figure 6.** Spindles.

2. Thread the drawbar approximately 10-15 turns into the bottom of the spindle. The drawbar has two threaded ends. One of them will remain exposed.
3. Make sure the spindle and cartridge are clean and free of the rust inhibiting protective grease. Lower the spindle/drawbar into the spindle cartridge at the top of the table. Line up the keyway on the spindle with the locating pin at the top of the spindle cartridge as illustrated in **Figure 7**. You will feel the spindle seat itself.



**Figure 7.** Installing spindle into the cartridge.

4. Thread the drawbar nut, tapered side up, onto the bottom of the drawbar, as illustrated in **Figure 8**.



**Figure 8.** Drawbar nut on spindle.

5. Place the spindle wrench on top of the spindle, so it fits over the head of the spindle. Place a 15mm wrench on the drawbar nut.
6. Hold the spindle in place and tighten the drawbar nut. **DO NOT** use excessive force.



# Handles

The guard adjuster is used to secure the guard to the table and to allow the guard to be loosened for adjustment. To assemble the guard adjuster:

1. Install the bar into the guide shaft as shown in **Figure 9**.
2. Line up the groove in the bar with the setscrew.



**Figure 9.** Slide bar into guide shaft.

3. Tighten the shaft setscrew into the groove to lock the bar in place as shown in **Figure 10**.



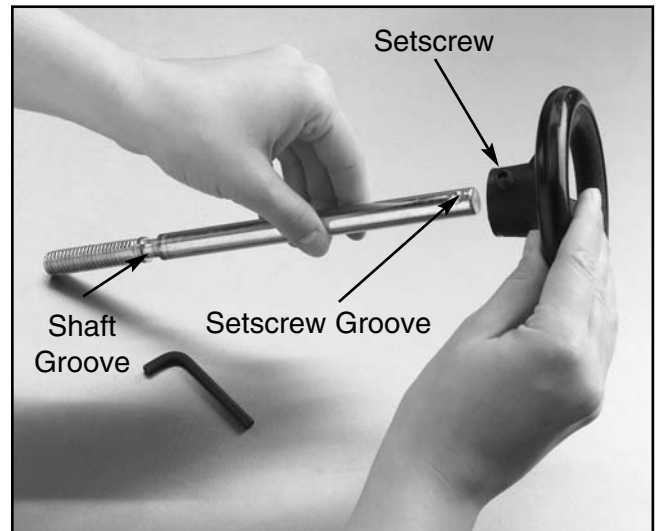
**Figure 10.** Tightening setscrew with hex key.

4. Install the round knobs shown in **Figure 11** onto both ends of the bar.



**Figure 11.** Thread round knobs onto bar.

The wheel shown in **Figure 12** fits on the adjustment shaft. This locks in place by tightening the setscrew into the groove on the shaft. There is a threaded hole on the wheel that allows for the optional installation of a crank (not included). The completed assembly is used to adjust the fence.

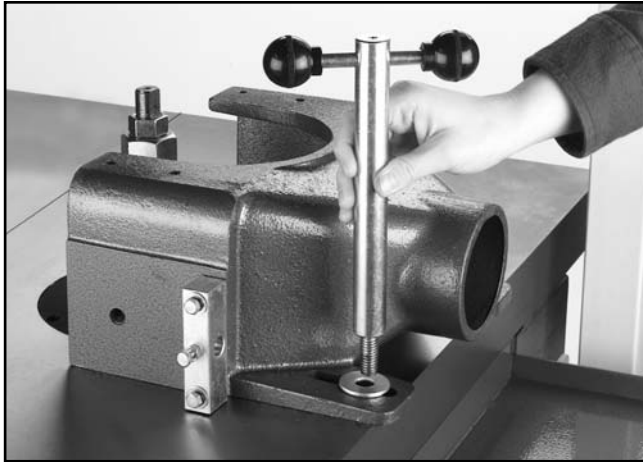


**Figure 12.** Installing wheel onto adjustment guide.



# Guard

To mount the cutter guard to the table, place the guard over the threaded holes on the table, and insert the shaft guide into the guard as shown in **Figure 13**. Thread the shaft guide clockwise to secure the guard to the table.



**Figure 13.** Inserting shaft guide into guard.

Insert the adjustment guide into the screw bracket. Line up the shaft groove shown in **Figure 12** with the center bolt and screw the bolt into the groove as shown in **Figure 14**. Do not completely tighten the bolt. This will allow the shaft to spin without coming out.

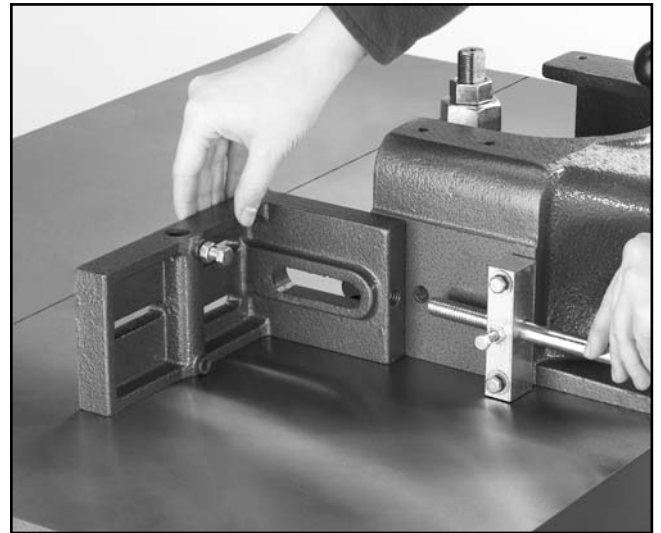


**Figure 14.** Tightening bolt into shaft groove.

# Fence Assembly

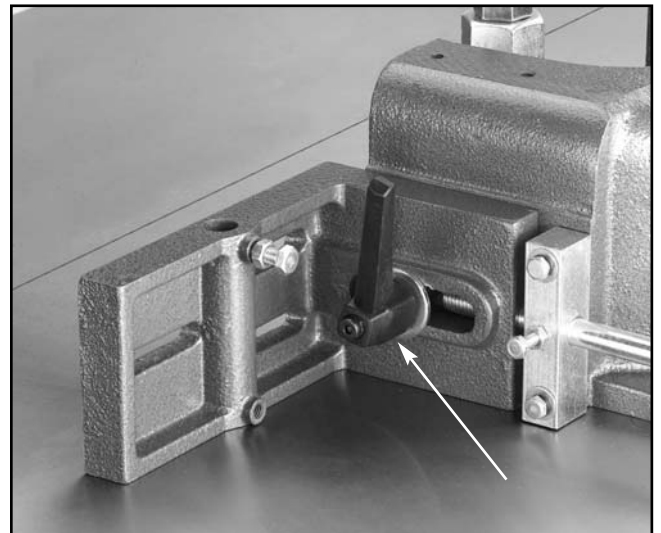
To mount the fence brackets to the guard body:

1. Make sure all rust protective grease has been removed from the fence pieces. Insert the adjustment shaft into the fence bracket as shown in **Figure 15**.



**Figure 15.** Adjustment shaft to fence bracket.

2. Insert the adjustable handle (**Figure 16**) into the fence bracket, and thread it into the guard body.



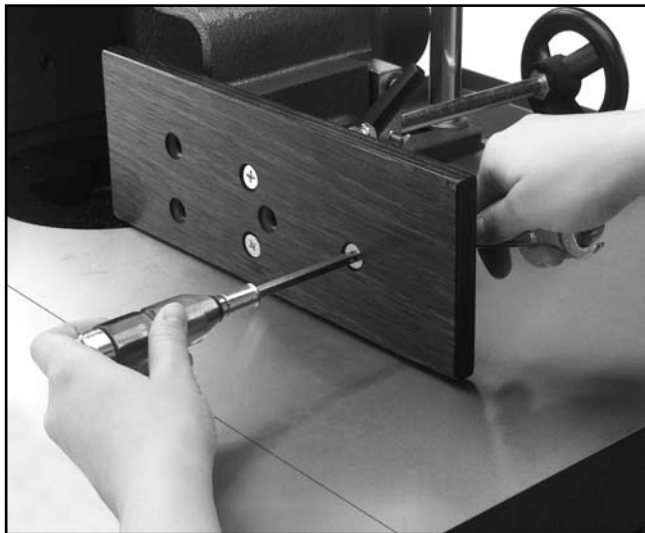
**Figure 16.** Adjustable handle.





To install the wood facing:

1. Secure the wooden fence pieces (as shown in **Figure 17**) with the  $\frac{5}{16}$ "-18 x 1" Phillips® head screws, washers, and hex nuts provided.
2. If using your own wood faces, make sure the countersunk holes in your fence material are deep enough to keep the entire screw head below the fence surface.



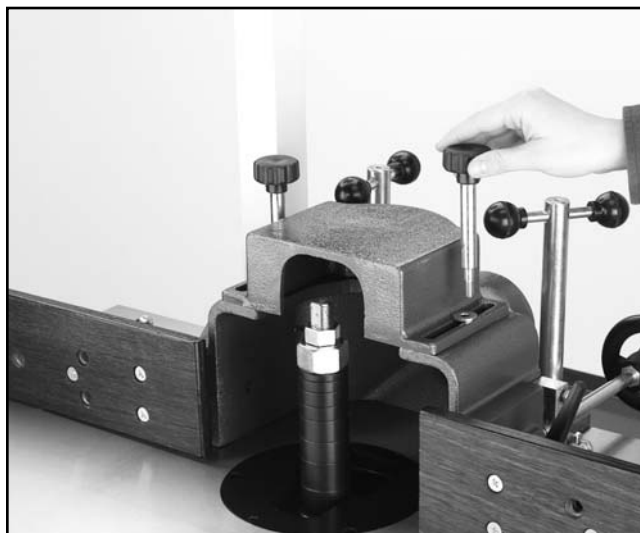
**Figure 17.** Attach wooden fence assembly.



## Guard Cover

To mount the guard cover:

1. Place the guard cover over the threaded holes on top of the guard body as shown in **Figure 18**.
2. Thread the knobs into the guard body and secure the cover.



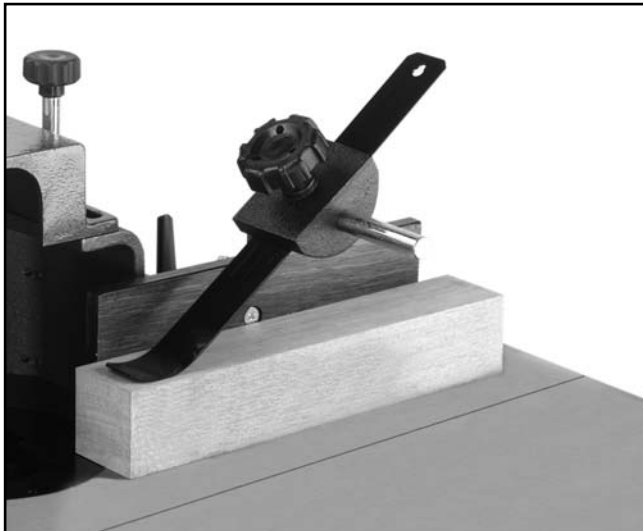
**Figure 18.** Guard cover.



# Hold-Downs

Hold-downs are used to hold the workpiece flat on the table and snug against the fence as shown in **Figure 19**. To assemble the spring hold-downs:

1. Slide a hold-down plate into each of the cast iron hold-down brackets.
2. Insert the bracket pole into the fence bracket and hold-down bracket.
3. Partially screw the handle into the hold-down brackets.
4. Position the hold-downs according to the size of your workpiece.
5. Tighten the handles to secure the hold-downs.



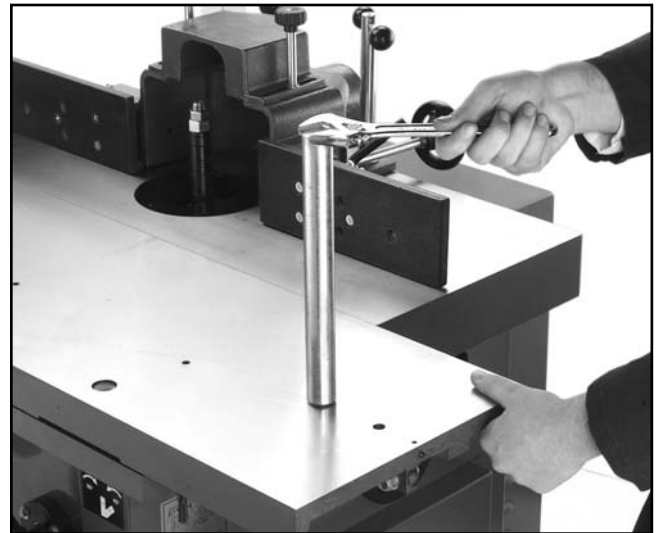
**Figure 19.** Hold-downs on workpiece.



# Miter Assembly

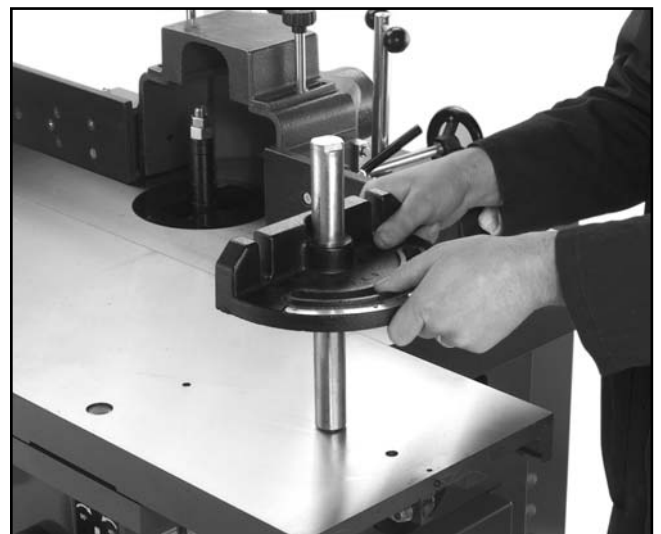
The miter gauge for the Model G8622 features a clamp and special fence. The miter gauge assembly can be mounted on either end of the table, depending on the type of desired cut or cutting direction. To mount the miter gauge and its fence:

1. Locate the threaded holes on either side of the table.
2. Install the push shaft as shown in **Figure 20**.



**Figure 20.** Installing the push shaft.

3. Now, slide the miter gauge down the push shaft as in **Figure 21**.



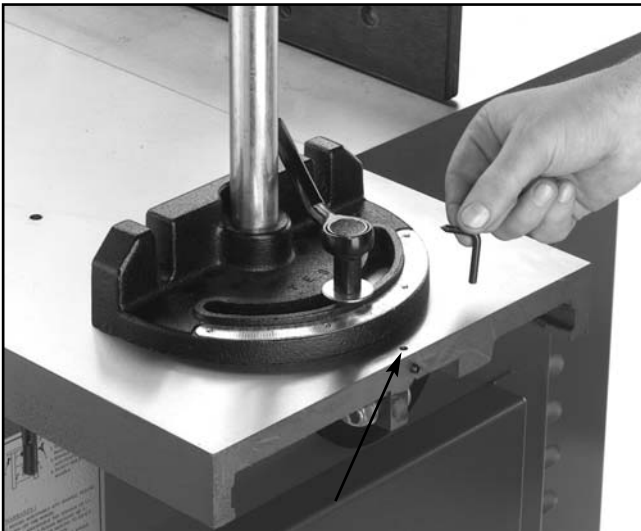
**Figure 21.** Installing the miter gauge.  
G8622 Tilting Spindle Sliding Table Shaper

4. With the provided washer, thread the adjustable handle through the miter gauge and into the table as shown in **Figure 22**.



**Figure 22.** Installing the adjustable handle.

5. Insert the the miter gauge pointer shown in **Figure 23**, but do not tighten the nearby setscrew at this time.



**Figure 23.** Installing the pointer.

6. Place flat washers on the miter fence hex bolts, then start the special nuts onto the ends. Slide the special nuts into the groove of the fence. The end piece for the fence works with the same special nut and hex bolt system. When these have all been installed on the miter fence, it is time to install the fence onto the miter gauge as in **Figure 24**.



**Figure 24.** Installing the miter fence.

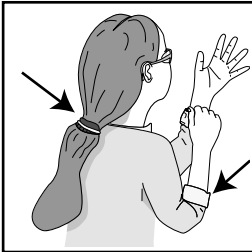
7. Tighten the hex bolts that secure the fence to the miter gauge.
8. Slide the clamping unit onto the push shaft as shown in **Figure 25**.



**Figure 25.** Installing the clamping unit.

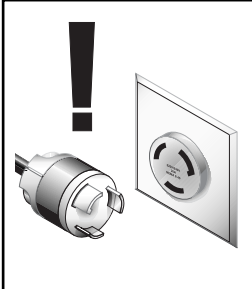


# SECTION 5: ADJUSTMENTS



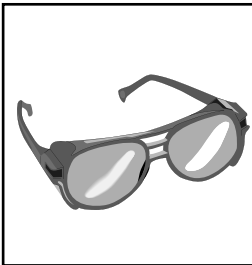
## **⚠️ WARNING**

Keep loose clothing rolled up and out of the way of machinery and keep hair pulled back.



## **⚠️ WARNING**

Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



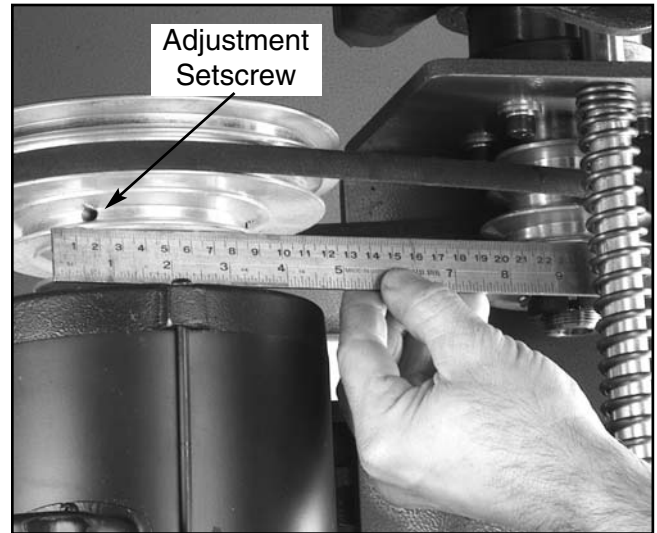
## **⚠️ WARNING**

Wear safety glasses during the entire adjustment process. Failure to comply may result in serious personal injury.

## Pulleys & V-Belt

Improper pulley alignment sharply reduces the effectiveness of power transmission and belt life expectancy. To align the pulleys:

1. Remove the motor cover from the back of the shaper cabinet to expose the motor and pulleys.
2. Check the alignment with a straightedge. If the pulleys are in alignment, the straightedge should touch two sides of each pulley evenly as in **Figure 26**.
3. If the pulleys are parallel with each other, but not in line, the motor needs to be adjusted.



**Figure 26.** Inspecting pulley alignment.

4. This process is easiest with the help of another person. Loosen the four bolts that attach the motor to the motor base. One person should slide the motor either up or down while the other person measures the alignment of the motor pulley and the spindle pulley with a straightedge.
5. When the motor pulley and the spindle pulley alignment are correct, tighten the motor to the motor base.
6. Inspect your results. If satisfactory, double-check that the mounting bolts are tight.
7. You can also make small adjustments in the motor pulley alignment by raising or lowering it along the motor shaft. To do this, loosen the two setscrews (one is shown in **Figure 26**) which are in the lowest groove of the motor pulley and move the pulley into position. Tighten the setscrews when the alignment is satisfactory.



# V-Belt Tension

You should be able to deflect the belt  $\frac{1}{4}$ " with moderate finger pressure. This may seem tight compared to most other V-belts, but since the belt is small and runs fast, this amount of tension is necessary. The V-belt will slip if too loose, and will squeal or cause vibration if too tight. To adjust V-belt tension:

1. Make sure the pulleys are properly aligned.
2. Loosen the two motor mount plate bolts and slide the motor left or right to modify the belt tension. Keep the pulleys aligned.
3. Tighten the motor mount plate bolts, test the tension, and check the pulleys.
4. Repeat **steps 2-3** until the tension is correct and the pulleys are aligned.

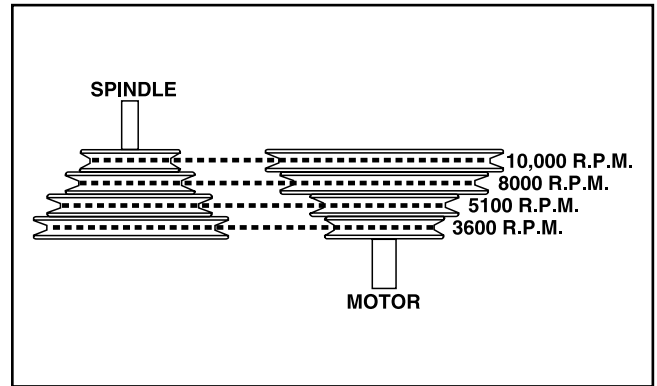


## Speed Changes

The Model G8622 Shaper is equipped with a V-belt drive system that controls the speeds. To change spindle speeds:

1. Unplug the machine.
2. Loosen the two motor plate bolts and slide the motor toward the spindle assembly. DO NOT take the bolts out.
3. Select the desired speed. There are four speeds: 3600 R.P.M., 5100 R.P.M., 8000 R.P.M., and 10,000 R.P.M. **Figure 27** shows the belt positions for each available speed.

G8622 Tilting Spindle Sliding Table Shaper



**Figure 27.** Spindle speed adjustment.

4. Align the belt along the appropriate pulley grooves.
5. Slide the motor back into position and tighten the belt. When the belt is properly tensioned, there should be approximately  $\frac{1}{4}$ " of deflection in the center of the belt when you press it with your thumb.
6. Tighten all of the adjustment bolts.
7. Spin the pulley to ensure proper tracking.



## Fence Adjustment

The fence is a two-piece adjusting system. Each fence is independently adjustable to compensate for different cutting thicknesses and special shaping applications. Without any play, one turn of the knob moves the split fence approximately  $\frac{5}{64}$ " (.078"). To adjust the fence:

1. Loosen the fence lock handle.
2. Turn the fence adjustment knob until the fence is set to the desired position.
3. Tighten the fence lock handle.

More detailed information concerning fence adjustments is covered in the "Straight Shaping" instructions.



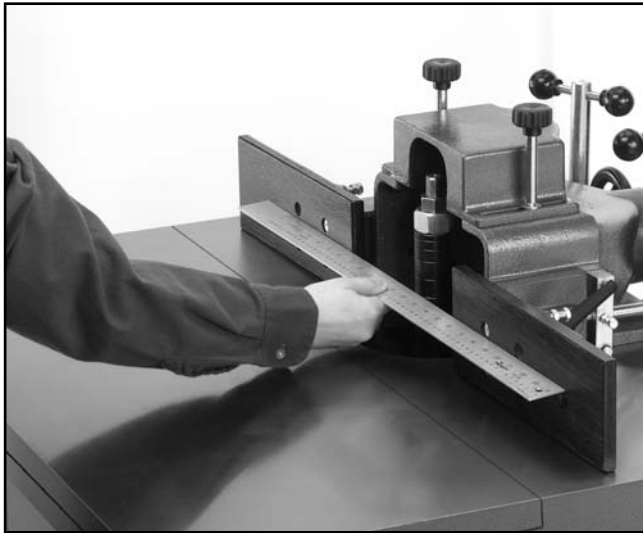
# Aligning The Fences

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The following procedure ensures that the fence is parallel with itself and square to the table.

1. Check that the bolts through the wood facing are tight on each side and are adequately countersunk.
2. To align the wood facing, adjust one or both fence halves so they are in close alignment. Micro-adjust and check the alignment with a straightedge as shown in **Figure 28**.
3. If the wood fences cannot be made parallel by adjusting the fence controls, shim the incorrect fence with electrical washers. Normal washers may work, but electrical washers allow for fine adjustments.



**Figure 28.** Aligning fences with straightedge.



# Setting Miter Gauge

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You will need to square the miter gauge each time it is removed from the table. To do this:

1. Ensure that the fence halves are aligned and that the miter assembly is correctly assembled.
2. Place one end of a framing or try square flush with the infeed shaper fence.
3. Rotate the miter gauge/fence so that it lines up flush with the other end of the square.
4. Set the miter gauge pointer to 0° and tighten the setscrew as shown in **Figure 29**.



**Figure 29.** Setting the miter gauge pointer.

5. Keeping the square flush with the infeed fence and the miter fence, clamp it to the table, and slide the table across the shaper. The square should stay flush with both infeed and outfeed fences during this movement. If this is the case, proceed to the next section. If they do not stay flush or are not square to the miter fence, repeat **steps 1-4** until they are true. During operation, move the infeed and outfeed fences away from the workpiece before cutting.



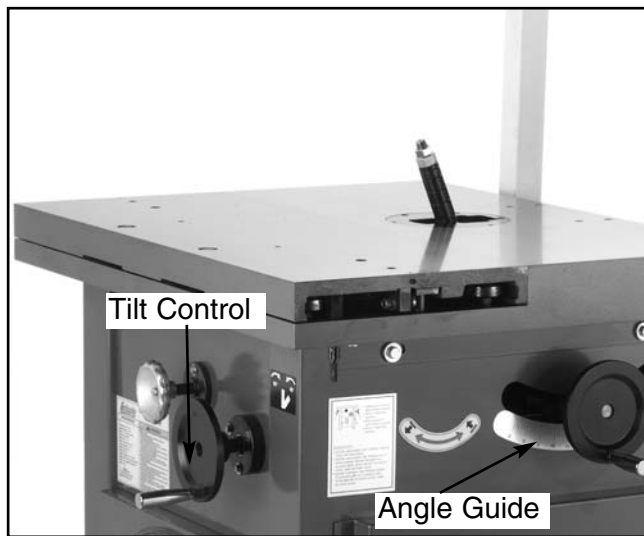
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# Tilting Spindle

The Model G8622 Shaper has a tilting spindle feature to allow a wider variety of profiles. Spindles can be tilted when needed as long as the cutterheads do not hit the table insert or table during operation. ALWAYS adjust and check the spindle tilt BEFORE you turn the shaper on.

**Figure 30** shows the tilt wheel that controls the tilting feature. Notice that on the other side of the shaper, there is an angle guide located below the vertical adjustment wheel. This will show you the present angle of spindle tilt.



**Figure 30.** Spindle tilt control and gauge.

## WARNING

Never adjust the spindle tilt when the shaper is running. The cutterhead may come in contact with the table or table insert and break apart, throwing shards of metal through the air. These metal chunks will be flying extremely fast and could cause death or severe injury.



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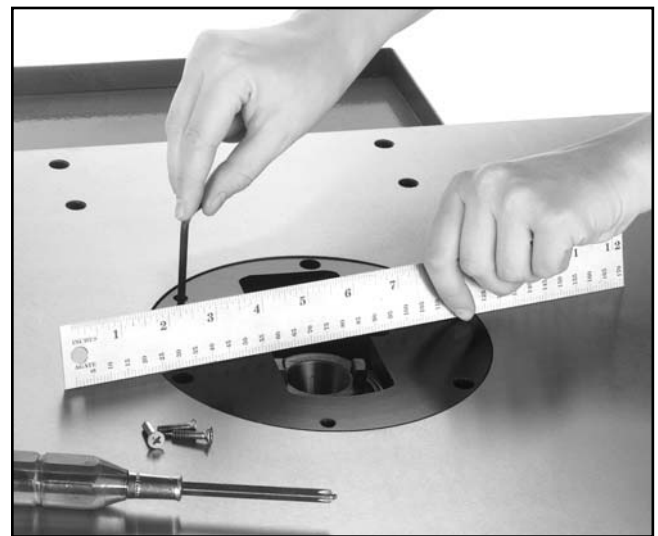
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# Table Insert

The Model G8622 is supplied with a special table insert that allows room for the spindle to tilt. Using this insert offers more support for the workpiece and reduces the amount of chips that can fall into the machine.

The table insert must be flush with the top of the table. To adjust the insert:

1. Remove the three Phillips® head screws that hold the cast iron insert in place.
2. By using a straightedge and a screwdriver, turn the barrel screws clockwise or counter-clockwise to level the cast iron insert with the top surface of the table as shown in **Figure 31**.



**Figure 31.** Leveling table insert (guard removed for clarity).

3. Inspect the table insert with the straightedge positioned from both side-to-side and front-to-back to ensure that the insert is flush with the table. Replace and secure the Phillips® head screws.



# Test Run

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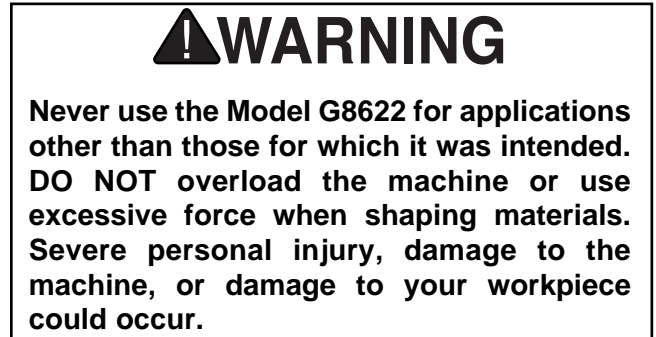
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Once assembly is complete and adjustments are done to your satisfaction, you are ready to start the machine.

DO NOT have a cutter installed when you test run the shaper. Turn on the power supply at the main panel. Press the *ON* button. Make sure that your finger is poised on the *OFF* button, just in case there is a problem. The shaper should run smoothly with little/no vibration or rubbing noises. Strange or unnatural noises should be investigated and corrected before operating the machine further.

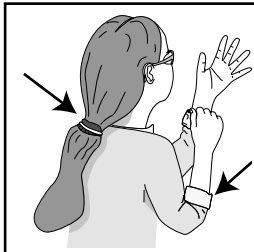
If the shaper seems to be running correctly, check the directional switch. The spindle should be rotating in a counterclockwise direction when the switch is in the *FWD* position. Run the Model G8622 for a short time to ensure that the moving parts are working properly with no excessive vibration. If any problem develops, correct it before attempting to use the machine.

If you cannot locate the source of unusual noises or problems, immediately contact our service department for help.



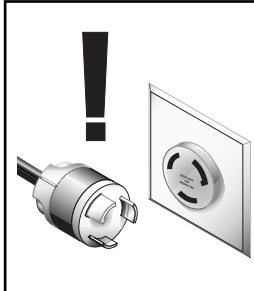


# SECTION 6: OPERATION



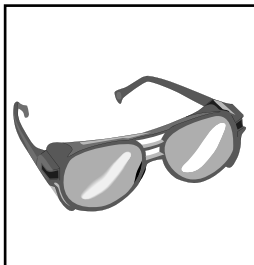
## ⚠️ WARNING

Keep loose clothing rolled up and out of the way of machinery and keep hair pulled back.



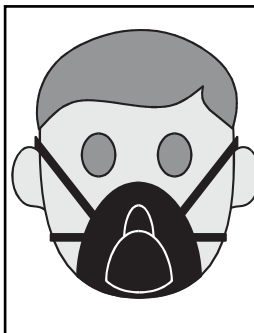
## ⚠️ WARNING

Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



## ⚠️ WARNING

Wear safety glasses during all operations on the shaper. Failure to comply may result in serious personal injury.



## ⚠️ CAUTION

Always wear a dust mask when operating the shaper. Using this machine produces sawdust which may cause allergic reactions or respiratory problems.

## NOTICE

The following section was designed to give instructions on the basic operations of this shaper. However, it is in no way comprehensive of every shaper application. There are many different jigs that can be built to increase safety, accuracy, and variety of cuts. **WE STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training to maximize the potential of your shaper.

## Rotation

Your shaper is equipped with a forward and reverse switch as shown in **Figure 32**. In many instances, it will be necessary to flip the cutter over and reverse the cutter rotation. Whenever possible, mount the cutter so the board is milled on the bottom side. This method does a better job and is safer for the operator.

## ⚠️ CAUTION

Always check the direction of cutter rotation before beginning any shaping operation, and always feed work against the direction of the cutter rotation.



Figure 32. Control panel.

## NOTICE

This machine was designed to be started and stopped with the **ON/OFF** buttons—not the reversing switch.



# Cutter Installation

Your shaper operates at speeds of 3600, 5100, 8000 and 10,000 R.P.M. 3½" or larger cutters must be operated at the slowest speed.

Always use the largest spindle size possible, and never use more than one bushing size to gain two spindle sizes. "Stacking" two cutter bushings to decrease the inside diameter of the cutter will cause the cutter to perform incorrectly when placed under a load.

1. Unplug the shaper.
2. Place an appropriate spacer or collar at the base of the spindle for support. Place the cutter on the spindle, making sure the rotation is correct for your application.
3. Use spacers or collars to suit your particular application, then place the spindle washer under the nut. Screw on the nut and locknut.
4. Tighten the nuts while holding the spindle stationary. Use a wrench on the flats at the top of the spindle for leverage as shown in **Figure 33**.



**Figure 33.** Tightening spindle nuts.

## **!WARNING**

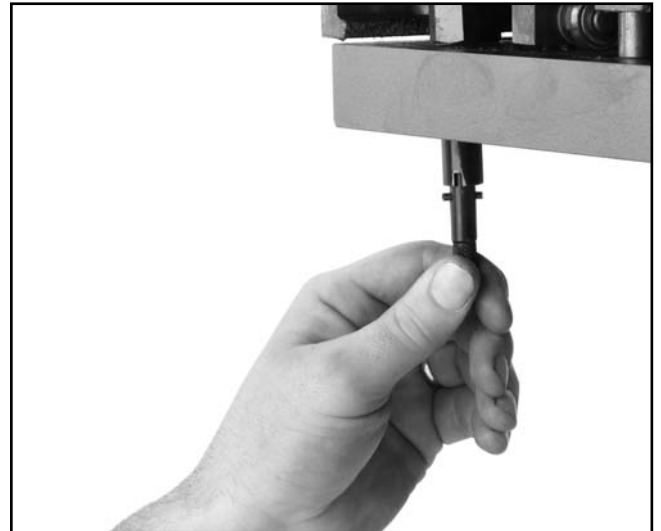
Always use a spindle lock nut during operation. If this warning is ignored, the cutter may fly off the spindle during use and cause severe personal injury.



# Table Lock

The sliding table works with the clamping miter gauge to allow you to secure your workpiece to the table and to make cuts by sliding the table. This feature greatly increases operator safety because it keeps hands away from the cutter-head during crosscuts.

When the sliding operation is not desired, the table lock shown in **Figure 34** will make the table stationary. Simply pull the knurled shaft and twist it so the cross pins slide into the largest slots in the housing. If you want to unlock the table, pull the shaft, twist it, and place the cross pins in the smallest slot.



**Figure 34.** Table lock.

## **!CAUTION**

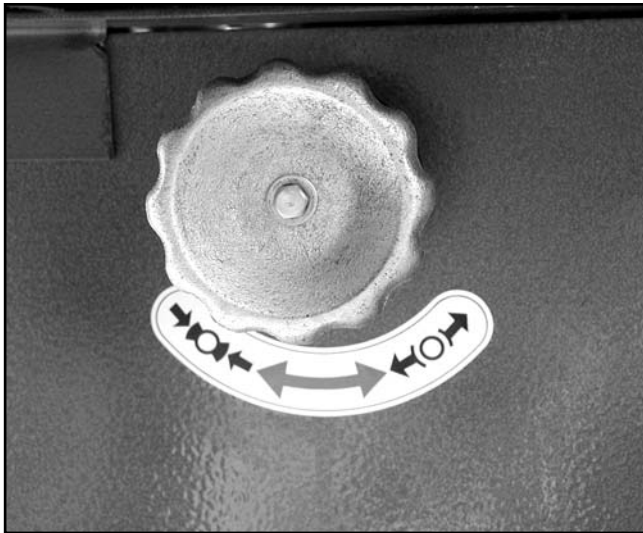
The sliding table makes it easy to feed the work into the cutter at a faster rate than would normally be used. Always feed the work slow and steady to avoid kickback and to achieve smooth results with your work. Although the miter assembly does aid in safety, common sense should always be used during every shaping operation.



# Spindle Height

To adjust the cutter height:

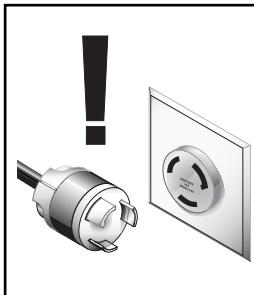
1. Loosen the spindle lock shown in **Figure 35**.
2. Move the spindle up or down with the hand-wheel until the desired position is obtained.
3. Lock the spindle into position.



**Figure 35.** Location of spindle lock.

## NOTICE

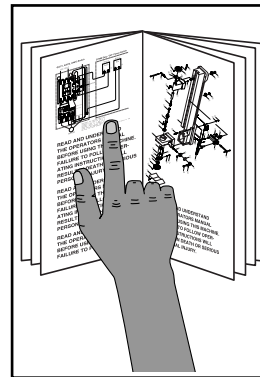
The lock knob keeps the spindle in a fixed position during shaper operation. Do not over-tighten the lock knob. A snug fit is all that is needed to keep the spindle from moving during operation.



**! WARNING**  
Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



# Straight Shaping



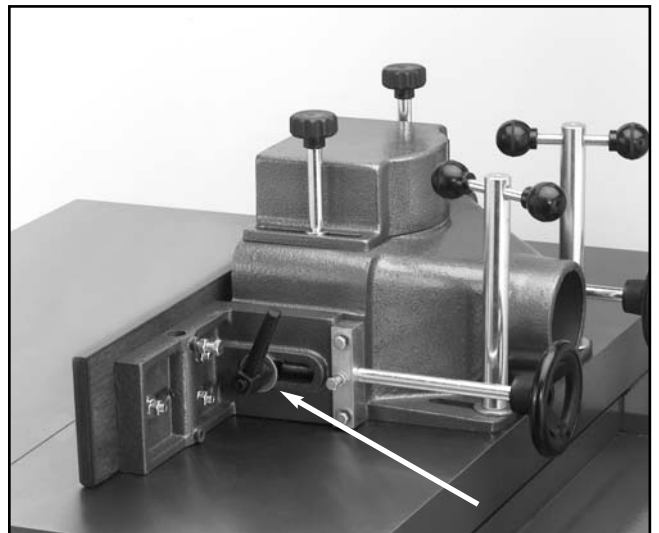
## ! WARNING

Read the entire manual before making any cuts with your shaper. Serious personal injury may result if safety or operational information is not understood or followed.

The fence assembly is a two-piece, independently adjustable system. When removing material from the whole face of your workpiece, the outfeed fence can be adjusted to provide support for the workpiece as it passes over the cutter. The outfeed fence can also be set in-line for partial face removal.

If removing material from the whole face, observe the following steps:

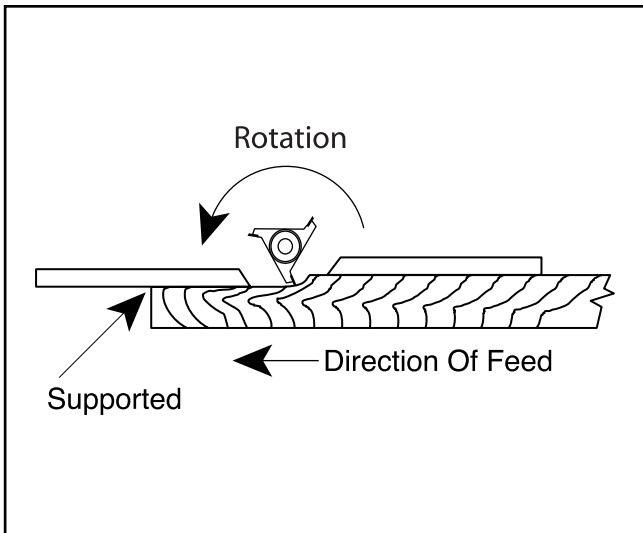
1. Loosen the locking handles shown in **Figure 36** that hold the fences in place.



**Figure 36.** Location of fence locking handles.

2. Adjust the infeed fence by turning the adjustment knobs until the workpiece contacts the cutter in the desired location.
3. Lock the infeed fence in position with the locking handle. Use a test piece to determine the best setting.

4. Loosen the mounting screws on the fence faces and set the face ends to barely clear the cutter. This allows the maximum support possible for the workpiece while passing the cutter. Remember to tighten the wood facing before starting the shaper.
5. A test sample of the desired cut should be advanced about 8" then stopped.
6. Once the shaper is turned off and the cutter has come to a complete stop, adjust the out-feed fence to support the new profiled edge. **See Figure 37.**

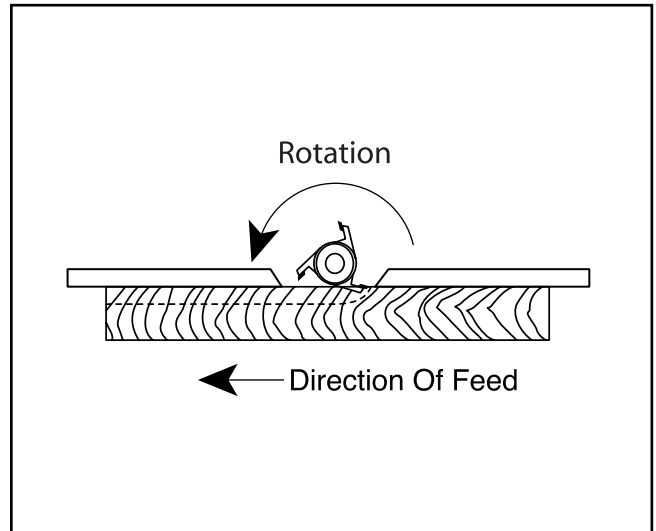


**Figure 37.** Fence adjusted to support workpiece.

**If the face of the workpiece will only be partially removed, observe the following steps:**

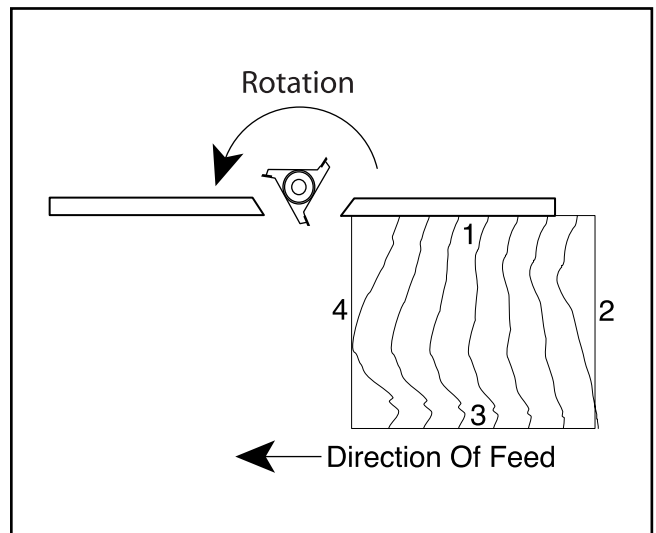
1. Adjust the infeed fence to approximately the desired depth of cut. Lock the infeed fence in place.
2. Use a straightedge to adjust the outfeed fence to the same plane as the infeed. Lock the outfeed fence in place.
3. Set the right and left wood face ends so they barely clear the cutter. This allows the maximum support possible for the workpiece while passing the cutter. Remember to tighten down the wood facing before starting the shaper.

4. Run a test piece through the shaper as shown in **Figure 38.**



**Figure 38.** Fence adjustment for blind cuts.

5. Always cut the end grain first when putting an edge around the perimeter of your workpiece. **See Figure 39.**



**Figure 39.** Sequence for multiple cuts.



# Rub Collars

Rub collars are used when shaping curved or irregular workpieces, such as arched doors or round table tops. Rub collars also limit the depth of your cut.

There are two types of rub collars—solid and ball-bearing. We recommend against the use of solid rub collars. Grizzly carries an extensive line of ball bearing rub collars designed for use with Grizzly shapers. See the current catalog for listings.

Rub collars may be used in any of the following positions:

1. **Rub collar below the cutter:** When the rub collar is used below the cutter as shown in **Figure 40**, the progress of the cut can be observed. However, any unintentional movement may lift the workpiece into the cutter, damaging your work and creating a potential kickback situation.

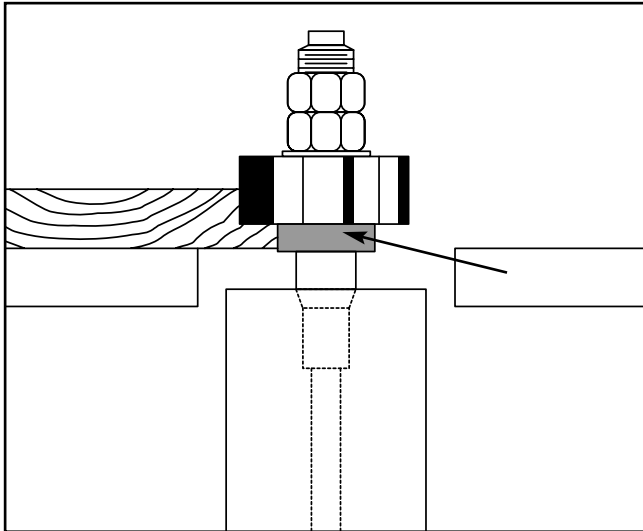


Figure 40. Rub collar installed below cutter.

## CAUTION

Whenever the cutterhead is above the workpiece, or you can see it spinning during use, you must take extreme caution to keep your hands away from the cutterhead. Failure to do so may cause serious personal injury.

2. **Above the cutter:** When the rub collar is used above the cutter as seen in **Figure 41**, the cut cannot be seen. This offers some advantage: the stock is not affected by slight variations in thickness and accidental lifting will not damage the workpiece. If lifting occurs, simply correct the mistake by repeating the operation.

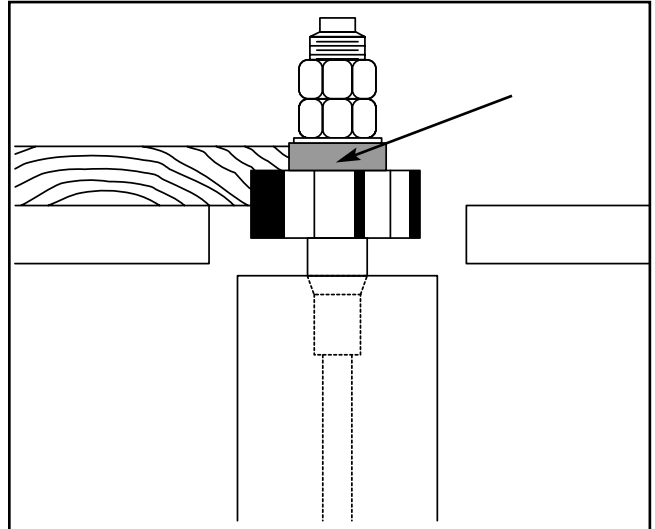


Figure 41. Rub collar installed above cutter.

3. **Between two cutters:** Using a rub collar between two cutters, as in **Figure 42**, has the distinct advantage of performing two cuts at once or eliminating the need to change cutters for two different operations. Notice that part of the edge is left uncut. The uncut portion rides on the rub collar.

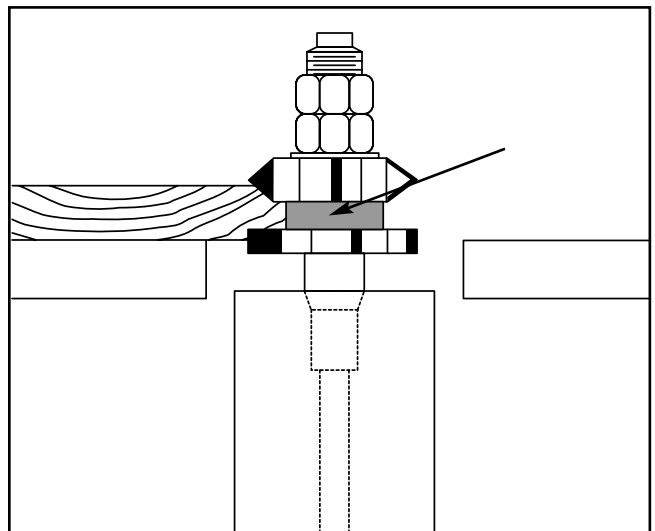


Figure 42. Rub collar between two cutters.

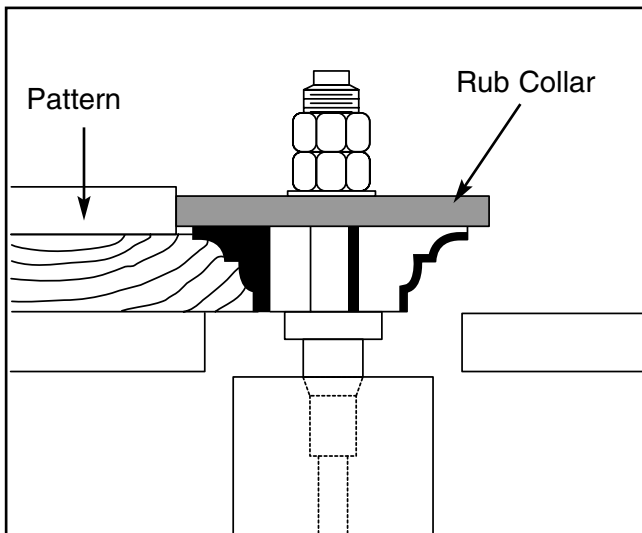


# Pattern Work

When using a pattern, the rub collar can be positioned either above, below or between cutters.

The pattern is usually used when the entire edge is to be shaped or when many duplicate pieces are needed. Pattern work is particularly useful when rough cutting irregular or oversize pieces and then shaping the edge in a simple two-step operation. A pattern can be incorporated into a jig by way of adding toggle clamps, hand holds or other safety devices.

You have greater flexibility when choosing the correct diameter rub collar for pattern work than for non-pattern work. If you look at **Figure 43**, you will notice that the position of the pattern determines the depth of cut. In other words, your pattern size is dependent upon the interrelationship of the cutting circle, the desired amount of material removed, and the rub collar size. Changing one or more of these will change the amount of material removed. Planning ahead, you can most effectively decide which rub collars are best suited for your application.



**Figure 43.** Rub collar determines depth of cut.

When making a pattern jig here are a few things to consider:

1. Build your jig from a material that will smoothly follow the rub collar or fence.

2. Make the jig stable, using proven methods and materials, and fasten the hand holds for operator comfort and safety.
3. Secure your workpiece on the three sides that will not be cut with toggle clamps, or fasten the workpiece to the jig with wood screws. Ensure that clamps and hidden screws do not come into contact with the cutter.
4. Design your jig so that all cutting occurs underneath the workpiece as shown in **Figure 44**. Notice the operator is not exposed to the cutting edge of the cutter!
5. Always consider the cutting circle and rub collar diameter for the correct cutting depth when designing your pattern.
6. Make sure the workpiece rests flat on the table, not on the fixture.

## ⚠ CAUTION

**Workpieces must be solid, stable, and secured to the jig; or kickback may occur, causing personal injury.**



**Figure 44.** Pattern jig for making curved pieces (guard removed for clarity).

Irregular or freehand shaping takes a high degree of skill and dexterity. The fence assembly is not used during irregular shaping, so rub collars must be used. Also, unless your jig is designed to touch the rub collar before contacting the blade, a starting fixture must be used to begin your cut.

About starting fixtures:

The purpose of the starting fixture is to support the workpiece during the beginning of the cut. The workpiece is typically placed in the starting position using the starting fixture for support, Then swung into the cutter while holding the workpiece firmly against the starting fixture. After the cut has been started, the work is swung away from the starting fixture and is supported only by the rub collar. **Always feed against the rotation of the cutter and do not start cuts at corners.**

To use your pattern jig:

1. Remove the fence assembly. Choose the appropriate cutter and rub collar for your application and lock them in place. Secure your workpiece to the pattern jig.
2. Check cutter rotation, and adjust the spindle height to align the cutter to your workpiece. Clamp a starting fixture to the table surface, using the location that best supports your work.
3. If everything is correct and the cutter is tight. Turn the shaper on.
4. Place your jig/workpiece against the starting fixture. Using firm pressure, pivot the workpiece into the cutter and make sure the jig is touching the rub collar. Keep your jig in contact with the rub collar and slowly follow the pattern, moving against the cutter rotation.



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## Freehand Shaping

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**Freehand methods are one of the most dangerous operations performed on a shaper.** Although this machine is capable of performing freehand operations, we do not recommend that you attempt to do so. If you **MUST** perform freehand operations, get formal training and read a book that details freehand operations, their inherent dangers, and ways to avoid those dangers!



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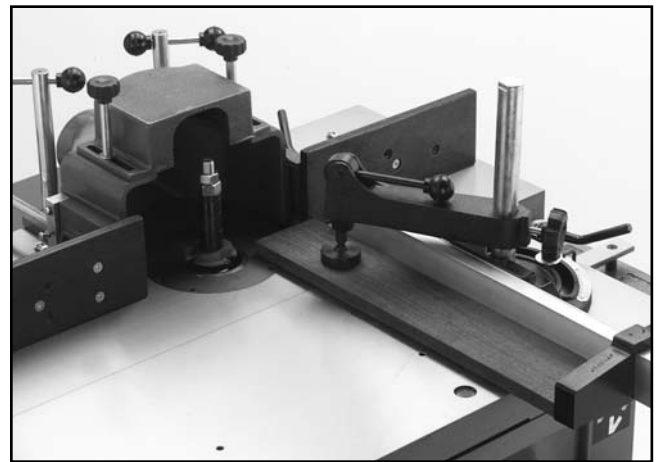
## Miter Assembly

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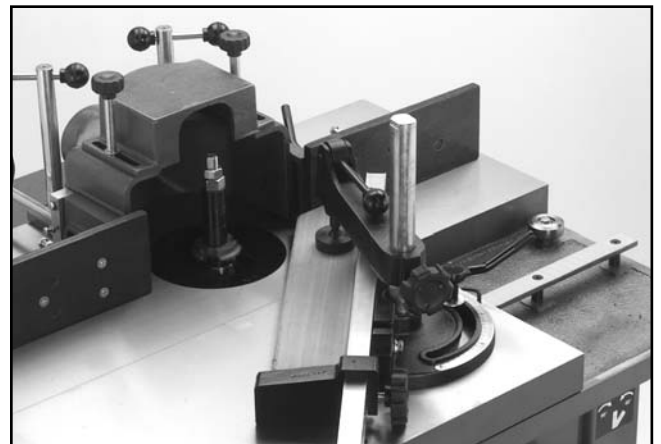
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When the workpiece is clamped to the table using the miter assembly, crosscuts can be made with a much greater degree of safety. The miter gauge can be adjusted to 60° in both directions. **Figure 45** shows the miter gauge set to 0° and **Figure 46** shows it at 45°. To adjust the miter fence:

1. Loosen the miter gauge with the adjustment handle.
2. Assuming that you have performed the steps in the “Setting Miter Gauge” instructions, turn the miter gauge in the desired direction so the pointer indicates the angle, and tighten the miter gauge with the adjustment handle.



**Figure 45.** Miter gauge set to 0° (fences opened for clarity).



**Figure 46.** Miter gauge set to 45° (fences opened for clarity).

# Shaper Accessories

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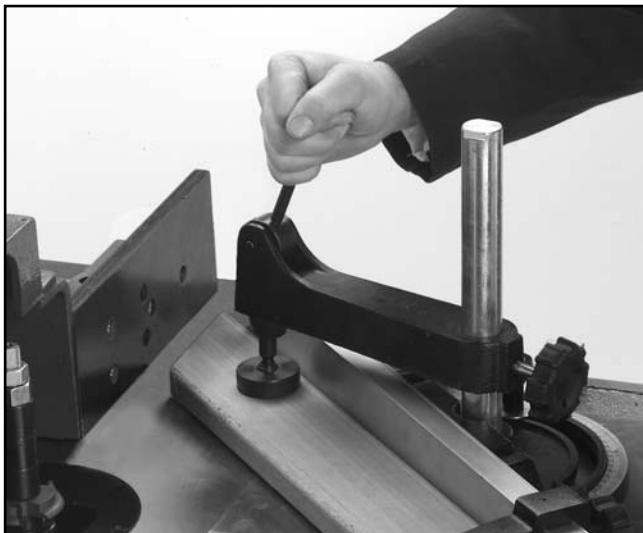
The **miter fence** can be adjusted by loosening the two bolts that hold it to the miter gauge and then sliding it in the desired direction.

The **support fence** slides up and down the miter fence and can be locked to hold the back of the workpiece in place.

The **miter clamp** holds the workpiece firm against the table and keeps it in position against all of the associated fences.

To use the miter assembly:

1. Determine the angle of cut and set the miter gauge to that angle, without tightening it yet. (The angle of the miter gauge should be determined by the angle of the workpiece you are about to shape.) Lock the miter gauge in place.
2. Move the infeed and outfeed fences out of the way. Hold the workpiece flush against the miter fence and slide the workpiece and table toward the cutter. Line the workpiece up with the cutter.
3. Slide the support fence to the back of the workpiece and lock in place.
4. Clamp the workpiece to the table with the miter clamp as shown in **Figure 47**.
5. The workpiece is now ready for the cut.



**Figure 47.** Locking down the miter clamp.

There are many accessories that can be built or purchased to increase the safety of the operator. Many experienced shaper users regularly use proven shop-made fences and safety guards to augment their shaping operations. In addition, many production shops routinely use power feeders with their shapers to streamline their operations.

Here are some basic accessories and their uses:

- **Zero Clearance Fence** — A shop-made fence with an opening only as large as the cutter, so that only the part of the cutter being used is exposed.
- **Box Fence** — A shop-made box that completely surrounds the cutter. A one-piece fence is attached that allows only the thickness of the board to pass underneath, thereby completely shielding the operator from exposure to the spinning cutter. A clear plexiglass window on top of the box allows the operator to view the workpiece during cutting.
- **Power Feeder** — A motorized unit that can be clamped or permanently mounted to the table of a shaper. A power feeder pulls the workpiece through the cut, reducing the risk of operator contact with the spinning cutter and reducing any injuries due to kickback. Because of the steady feed rate, power feeders can also produce cleaner, more consistent cuts. Check the current Grizzly catalog for available power feeders.

Because of the wide range of fences and guards that can be built in the shop, explaining their construction is beyond the scope of this manual. We strongly recommend that you read shaper books, trade magazines, or get formal training to learn more about these.





# SECTION 7: MAINTENANCE



## General

Regular periodic maintenance on your Model G8622 ensures its optimum performance. Make a habit of inspecting your shaper each time you use it.

Check for the following conditions and repair or replace when necessary.

1. Loose mounting bolts.
2. Worn switch.
3. Worn or damaged cords and plugs.
4. Damaged V-belt.
5. Any other condition that could hamper the safe operation of this machine.



## Table

Tables can be kept rust-free with regular applications of products like Boeshield® T-9. For long term storage you may want to consider products like Kleen Bore's Rust Guardit™.



## Lubrication

The only parts on this machine that require periodic lubrication are the ways where the cartridge slide rides on the elevation housing and where the worm gear and bushing are located. Use a light grease or anti-seizing compound on the ways and worm gear, and give the shaft mount a shot of light oil.



## V-Belt

Avoid getting grease or oil on the V-belt or pulleys. Check the V-belt, as part of a monthly inspection for proper tension and belt condition. Cracking and glazing could result in belt failure. Replace the belt if such conditions appear.



## Schedule

**Regularly** blow out air vents with compressed air and keep the exhaust port clear. Always wear a dust mask during this operation.

For every **1 hour** of use, clean and wipe down with Boeshield™ T-9:

- Table and miter gauge slide
- Fence faces

For every **5 hours** of use, clean and oil:

- Spindle column and cartridge
- Offset adjustment mechanisms on fence
- All worm drive and other gears

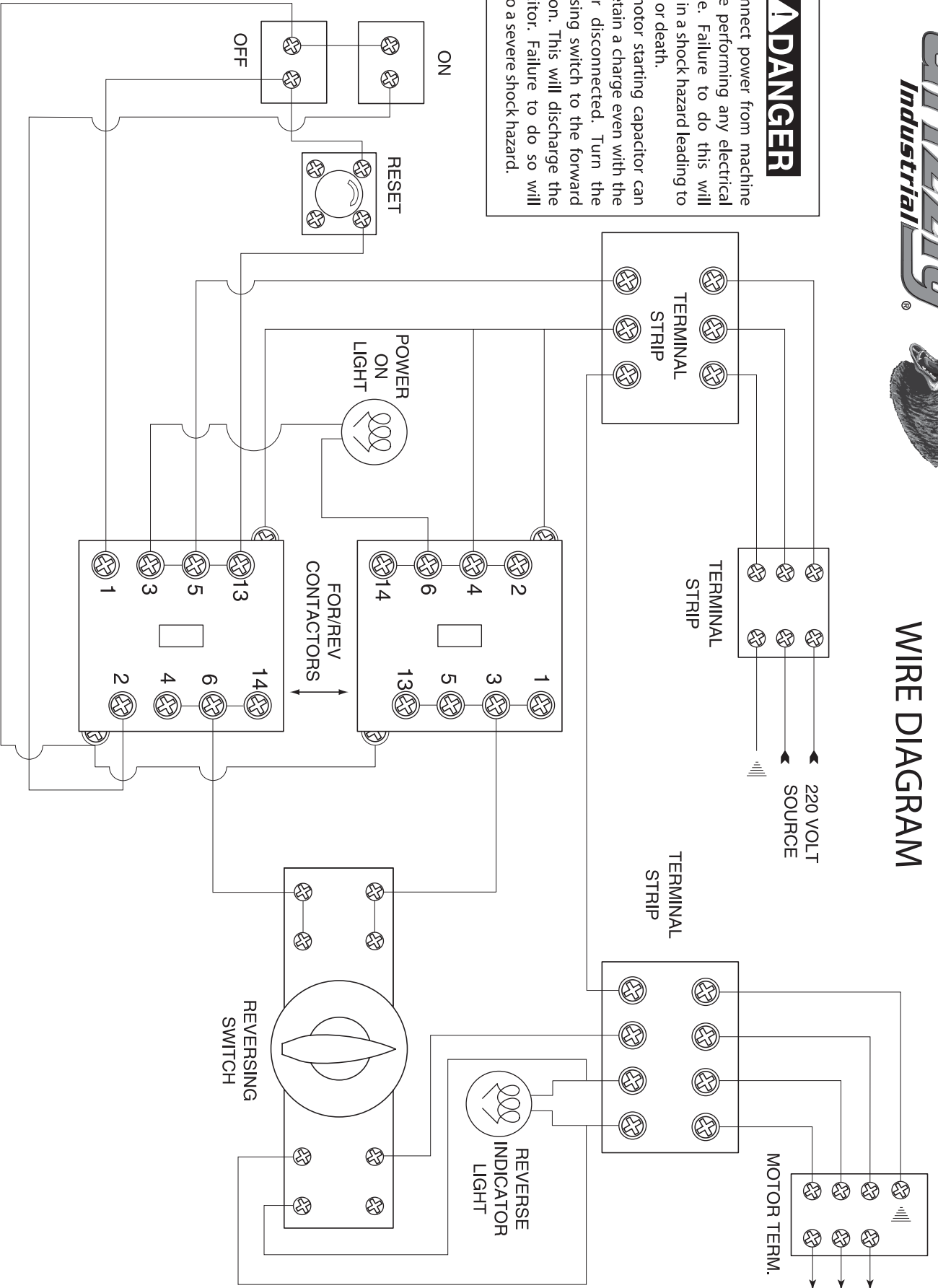
**Once a year**, replace the V-belt.





# G8622 SHAPER WIRE DIAGRAM

**⚠ DANGER**  
 Disconnect power from machine before performing any electrical service. Failure to do this will result in a shock hazard leading to injury or death.  
 The motor starting capacitor can still retain a charge even with the power disconnected. Turn the Reversing switch to the forward position. This will discharge the capacitor. Failure to do so will lead to a severe shock hazard.



G8622 Tilting Spindle Sliding Table Shaper

# SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams/lists, troubleshooting guide and Warranty/Return information for your Model G8622 Tilting Spindle Sliding Table Shaper.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in the **General Information** section. The specifications, drawings, and photographs illustrated in this manual represent the Model G8622 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered as they apply to your specific situation.

## **WARNING**

Operating this equipment has the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).



G8622 Tilting Spindle Sliding Table Shaper

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department listed in the **Introduction** section.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines and your local library are good places to start.

## **WARNING**

The Model G8622 was specifically designed for wood shaping operations only. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE.** Modifications or improper use of this tool will void the warranty. If you are confused about any aspect of this machine, **DO NOT** use it until all your questions have been answered, or serious personal injury may occur.

## **WARNING**

Like all power tools, there is danger associated with the Model G8622 Shaper. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.





# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

## GRIZZLY MODEL G8622 TILTING SPINDLE SLIDING TABLE SHAPER

Design Type..... Floor Model

### Overall Dimensions:

Fixed Table .....35½" x 14<sup>7</sup>/<sub>8</sub>"  
 Sliding Table.....35½" x 13<sup>1</sup>/<sub>4</sub>"  
 Height (Includes Fence) .....45½"  
 Height From Table To Floor .....34<sup>3</sup>/<sub>4</sub>"  
 Length (w/ Knob On) .....42½"  
 Width.....35½"  
 Width w/ Table Extended .....56½"  
 Footprint .....27" x 25½"  
 Shipping Weight.....720 lbs.

### Capacities:

Spindle Sizes .....¾", 1", 1¼"  
 Spindle Lengths .....6" - 7"  
 Spindle Capacity Under Nut .....4¼", 4<sup>5</sup>/<sub>8</sub>", 5<sup>1</sup>/<sub>8</sub>"  
 Spindle Travel.....3¼"  
 Dust Port .....4"  
 Table Counter-bore .....7" x 5<sup>5</sup>/<sub>8</sub>"  
 Max. Cutter Diameter .....5<sup>7</sup>/<sub>8</sub>"  
 Spindle Speeds .....3600, 5100, 8000, 10,000 R.P.M.  
 Spindle Tilt .....0° - 45°

### Construction:

Table .....Ground Cast Iron  
 Fence Assembly .....Cast Iron / Wood; Independently Micro-Adjustable  
 Miter Fence .....Extruded Aluminum  
 Body Assembly .....Cast Iron  
 Cabinet .....Formed Steel

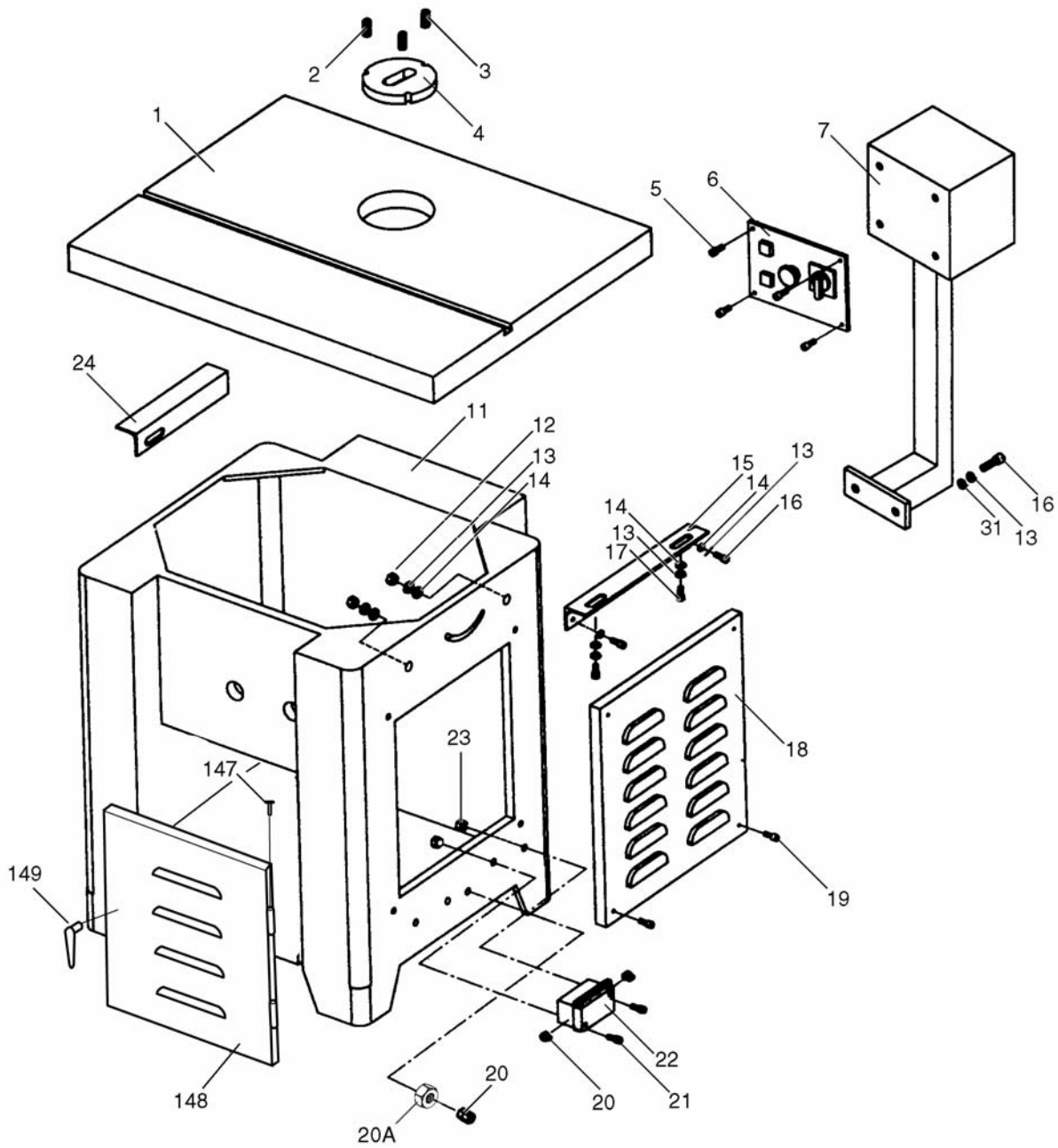
### Motor:

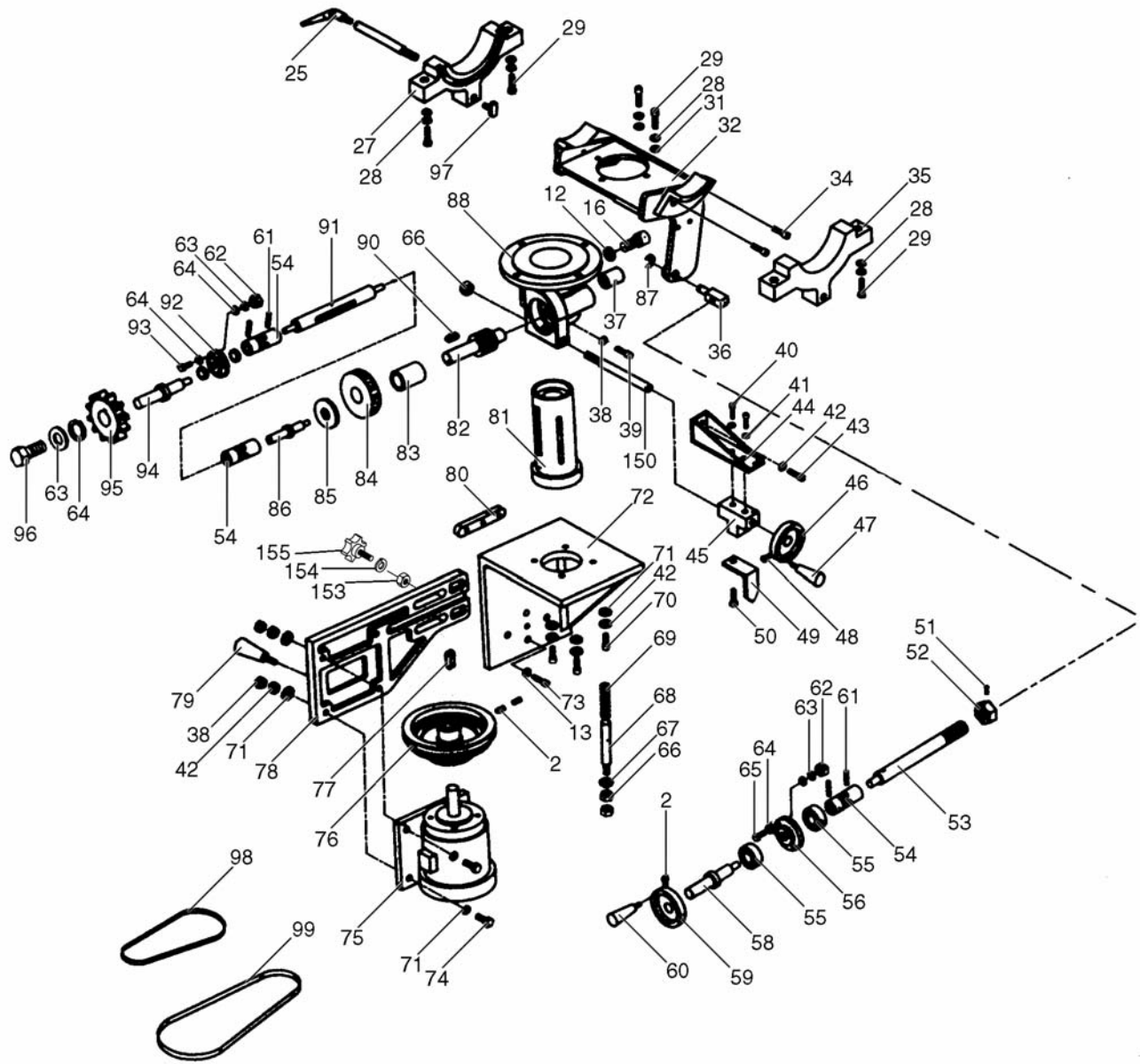
Type .....TEFC Capacitor-Start Induction  
 Horsepower.....5 H.P.  
 Phase / Voltage .....Single Phase / 220 V  
 Amps .....14 A  
 Switch .....Push Button ON/OFF, Emergency Stop; Lever for Forward / Reverse  
 Cycle / R.P.M.....60 Hertz / 3450 R.P.M.  
 Bearings .....Shielded & Lubricated Ball Bearings

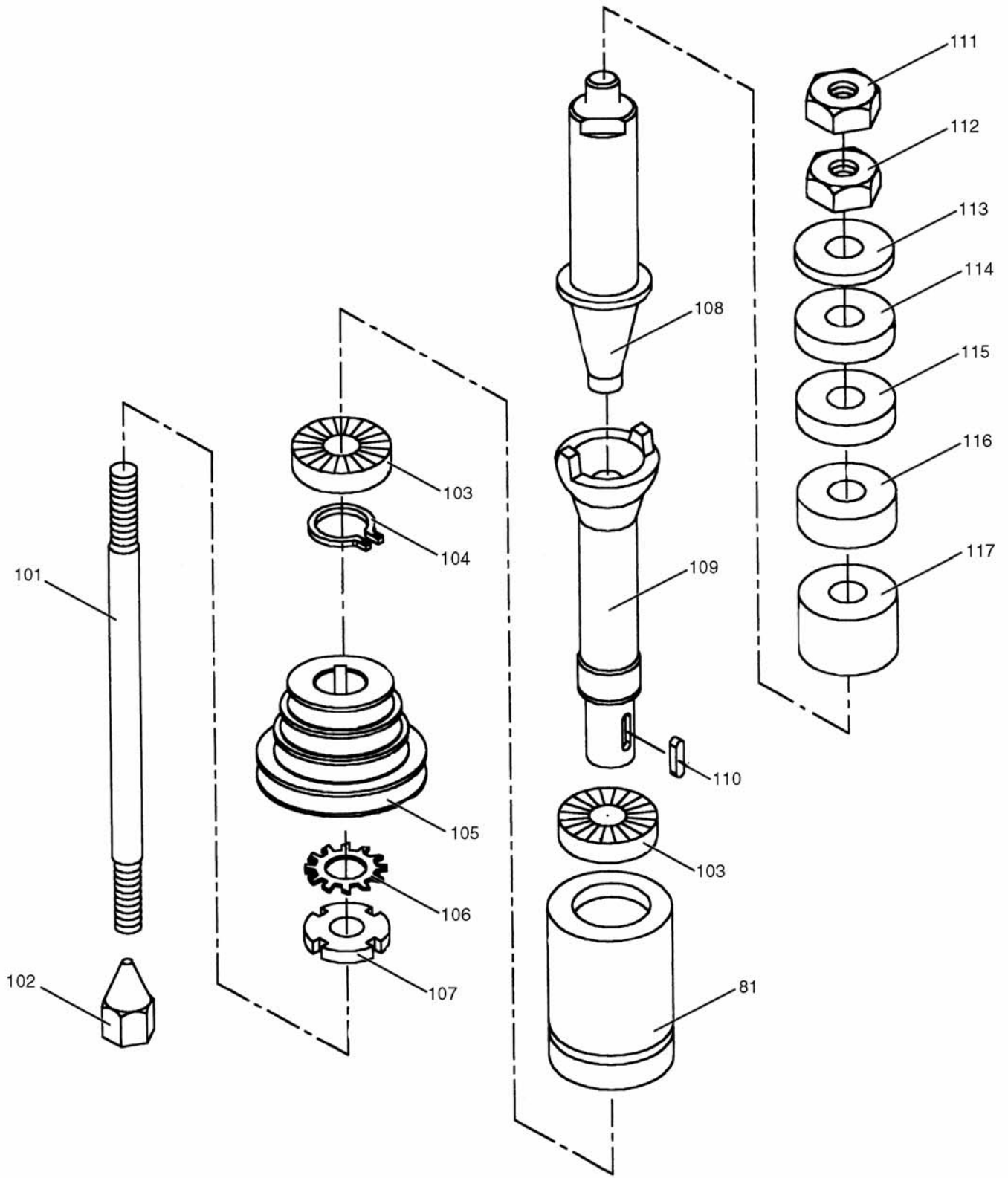
### Features:

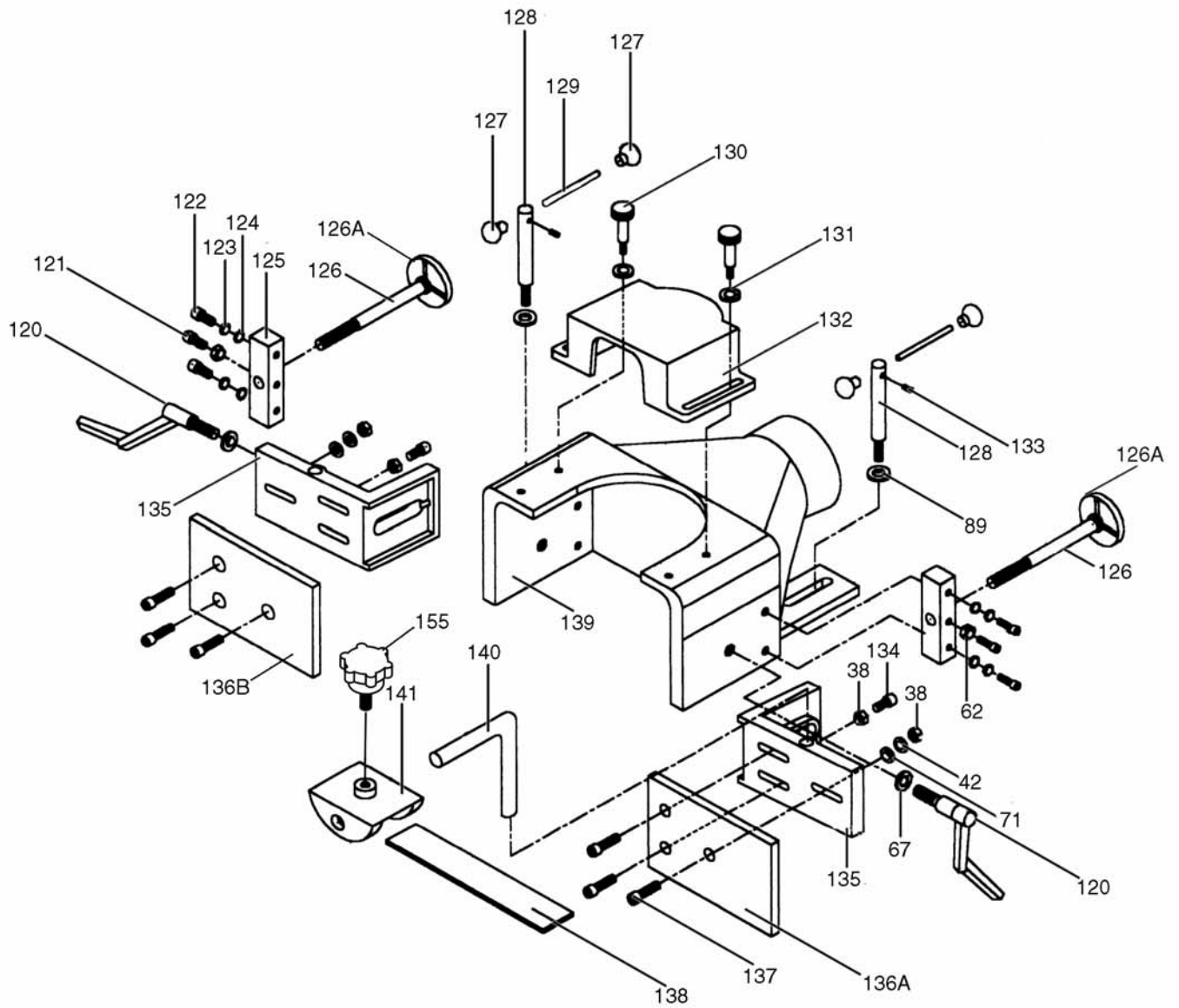
.....Lever Actuated Stock Hold-Down  
 .....Miter Angle Adjustable 60° Left to 60° Right  
 .....Miter Fence Adjustable Stop Block  
 .....4 Spring Steel Hold-down Assemblies  
 .....Fence Adjustments Include Built-In Ratchets And Knob-Equipped Adjusters  
 .....3 Table Inserts  
 .....Spindles Include Spacers And Nuts  
 .....Spindle Height Scale In Inches And MM  
 .....Sliding Table Rides On Eight Shielded And Lubricated Ball Bearings

*Specifications, while deemed accurate, are not guaranteed.*

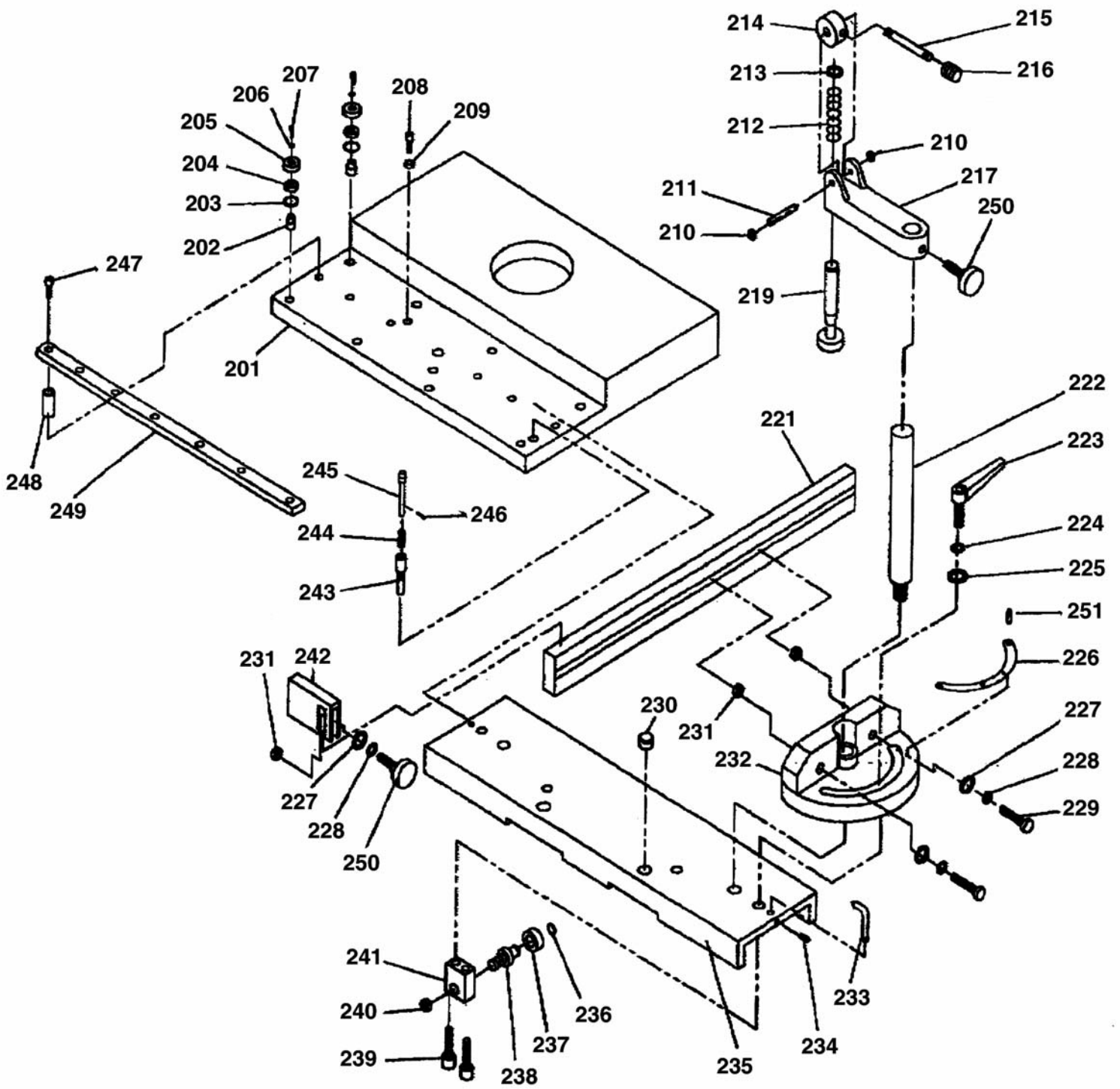












REF	PART #	DESCRIPTION
001	P5913Z001	TABLE
002	PSS23	SETSCREW 5/16"-24 X 5/8"
003	PS08	SCREW 10-24 X 3/4"
004	P5913Z004	TABLE INSERT
005	PS04	SCREW RD HD
006A	P5913Z006A	SWITCH 5 H.P., 1 PH, 220V
006B	P7215Z006B	SWITCH 7.5 H.P., 3 PH
007	P5913Z007	SWITCH PLATE
011	P5913Z011	STAND ASSEMBLY
012	PN08	HEX NUT 3/8"-16
013	PLW04	LOCK WASHER 3/8"
014	PW02	WASHER 3/8"
015	P5913Z015	TABLE BRACE (R)
016	PB18	BOLT HEX HD 3/8"-16X 1"
017	PB21	BOLT HEX HD 3/8"-16 X 3/4"
018	P5913Z018	MOTOR COVER
019	PS02	SCREW RD HD 1/4"-20X 3/4"
020	P5913Z020	CONNECTOR
020A	P5913Z020A	CONNECTOR NUT
021	PS08	SCREW RD HD 10-24 X 3/4"
022	P5913Z022	ELECTRICAL BOX
023	PN07	HEX NUT 10-24
024	P5913Z024	TABLE BRACE (L)
025	P5913Z025	HANDLE LOCK
027	P5913Z027	TRUNNION SUPPORT (L)
028	PLW04	LOCK WASHER 3/8"
029	PSB19	CAP SCREW 3/8"-16 X 1 1/4"
031	PW02	WASHER 3/8"
032	P5913Z032	SUPPORT BRACKET
034	PSB19	CAP SCREW 3/8"-16 X 1 1/4"
035	P5913Z035	TRUNNION SUPPORT (R)
036	P5913Z036	HEX NUT
037	P5913Z037	COLLAR
038	PN02	HEX NUT 5/16"-18
039	PB03	HEX HD BOLT 5/16"-18 X 1"
040	PB02	BOLT HEX HD 1/4"-20 X 5/8"
041	PW06	WASHER 1/4"
042	PW07	WASHER 5/16"
043	PB07	HEX HD BOLT 5/16"-18X 3/4"
044	P5913Z044	FIXED SOCKET
045	P5913Z045	FIXED T-SOCKET
046	P5913Z046	HANDWHEEL
047	P5913Z047	KNOB
048	PSS08	SETSCREW 5/16"-18 X 1/2"
049	P5913Z049	POINTER
050	PS18	BOLT HEX HD
051	PSS11	SETSCREW 1/4"-20 X 1/4"
052	P5913Z052	HEX NUT
053	P5913Z053	WORM SHAFT
054	P5913Z054	UNIVERSAL ADAPTER
055	P5913Z055	THRUST BALL BEARING

REF	PART #	DESCRIPTION
056	P5913Z056	BASE GEAR SHAFT
058	P5913Z058	BAR LOCK
059	P5913Z059	HAND WHEEL
060	P5913Z060	KNOB
061	P5913Z061	PIN
062	PN05	HEX NUT 1/4"-20
063	PLW02	LOCK WASHER 1/4"
064	PW06	WASHER 1/4"
065	PB13	BOLT HEX HD 1/4"-20X1 1/4"
066	PN06	HEX NUT 1/2"
067	PW01	WASHER 1/2"
068	P5913Z068	SHAFT SPRING
069	P5913Z069	SPRING
070	PSB03	CAP SCREW
071	PW07	WASHER 5/16"
072	P5913Z072	MOTOR PLATE
073	PB21	BOLT HEX HD 3/8"-16 X 3/4"
074	PB12	BOLT HX HD 5/16"-18X1 1/4"
075A	G5913Z075A	MOTOR 5 H.P.
075B	G7215Z075B	MOTOR 7 1/2 H.P.
076	G5913Z076	MOTOR PULLEY
077	PK41M	KEY
078	G5913Z078	MOTOR BASE
079	G5913Z079	KNOB
080	G5913Z080	KEY
081	G5913Z081	QUILL
082	G5913Z082	GEAR SHAFT
083	G5913Z083	COLLAR
084	G5913Z084	GEAR
085	G5913Z085	GEAR WASHER
086	G5913Z086	LOCK SCREW
087	PR05M	EXT SNAP RING 15MM
088	P5913Z088	SPINDLE BASE
089	PW01	WASHER 1/2"
090	PK37M	KEY
091	G5913Z091	LOCK BAR
092	G5913Z092	BASE GEAR
093	PB31	BOLT HEX HD 1/4"-20X 1"
094	P5913Z094	LOCK SCREW
095	P5913Z095	HANDWHEEL
096	PB02	BOLT HEX HD 1/4"-20 X 5/8"
097	P5913Z097	T TYPE NUT
098	PVA30	V-BELT A-30 4L300
099	PVA28	V-BELT A-28 4L280
101	P5913Z101	LOCK BOLT
102	P5913Z102	LOCK NUT
103	P6008	BEARING 6008 ZZ
104	PR34M	EXT SNAP RING 40MM
105	P5913Z105	SPINDLE PULLEY
106	P5913Z106	WASHER 30MM
107	P5913Z107	HEX NUT

REF	PART #	DESCRIPTION
108	P5913Z108	SPINDLE 1¼"
109	P5913Z109	SHAFT
110	P5913Z110	KEY
111	P5913Z111	HEX NUT ¾" (L.H.)
112	P5913Z112	HEX NUT 1" (R.H.)
113	P5913Z113	COLLAR 1¼" X ¼" 1PC
114	P5913Z114	COLLAR 1¼" X ⅜" 1PC
115	P5913Z115	COLLAR 1¼" X ½" 2PCS
116	P5913Z116	COLLAR 1¼" X ¾" 2PCS
117	P5913Z117	COLLAR 1¼" X 1" 2PCS
120	P5913Z120	HANDLE LOCK
121	PB05	BOLT HEX HD ¼"-20 X ¾"
122	PB19	BOLT HEX HD ¼"-20 X ½"
123	PLW02	LOCK WASHER ¼"
124	PW06	WASHER ¼"
125	P5913Z125	BRACKET SCREW GUIDE
126	P5913Z126	SCREW GUIDE
126A	P5913Z126A	HANDWHEEL
127	P5913Z127	KNOB
128	P5913Z128	GUIDE SHAFT
129	P5913Z129	BAR
130	P5913Z130	KNOB
131	PW07	WASHER ⅝"
132	P5913Z132	GUARD PLATE
133	PSS11	SETSCREW ¼"-20 X ¼"
134	PB07	HEX HD BOLT ⅝"-18 X 1"
135	P5913Z135	BRACKET FENCE (R & L)
136A	P5913Z136A	WOODEN FENCE (R)
136B	P5913Z136B	WOODEN FENCE (L)
137	PS11	PH SCREW ⅝"-18 X 1¼"
138	P5913Z138	HOLD-DOWN PLATE
139	P5913Z139	GUARD
140	P5913Z140	HOLD-DOWN BAR
141	P5913Z141	HOLD-DOWN BRACKET(L)
142	P5913Z142	HANDLE LOCK
143	P5913Z143	HEX NUT
144	P5913Z144	BRACKET FENCE (L)
145	P5913Z145	KNOB
146	P5913Z146	HOLD-DOWN BRACKET (R)
147	P5913Z147	PIN
148	P5913Z148	COVER
149	P5913Z149	COVER HANDLE
150	P5913Z150	SHAFT GEAR
151	PB41	HEX BOLT ½"-12 X 1½"
152	PLW07	LOCK WASHER ½"
153	PW01	WASHER ½"
155	P5913Z155	KNOB
201	P8621	TABLE
202	P8621202	ECCENT PULLEY SHAFT
203	PR12M	C-RING R35

REF	PART #	DESCRIPTION
204	P6202	BEARING 6202Z
205	P8621205	PULLEY
206	PLW01	LOCK WASHER ⅝"
207	PSB08	SCREW ⅝"-18 X 1½"
208	PSB64	CAP SCREW ½"-12 X 1½"
209	PN06	HEX NUT ½"-12
210	P8621210	C-RING C8
211	P8621211	SHAFT
212	P8621212	SPRING
213	PR05M	C-RING C15
214	P8621214	PRESS WHEEL
215	P8621215	PRESS SHAFT
216	P8621216	PLASTIC NUT
217	P8621217	PRESS WOOD BASE
218	P8621218	HANDLE LOCK
219	P8621219	PRESS SPRING SHAFT
220	P8621220	PRESS WOOD BSE
221	P8621221	FENCE
222	P8621222	PUSH SHAFT
223	P8621223	HANDLE LOCK
224	PLW07	LOCK WASHER ½"
225	PW01	WASHER ½"
226	P8621226	ANGLE GAUGE STICKER
227	PW02	WASHER ⅜"
228	PLW04	LOCK WASHER ⅜"
229	PB16	SCREW ⅜"-16 X 1½"
230	P8621230	COVER
231	PN08	HEX NUT ⅜"
232	P8621232	GAUGE
233	P8621233	POINTER
234	PS18	SCREW 10-24 X ¼"
235	P8621235	GUIDE TABLE
236	PR01M	C-RING C-10
237	P6900	BEARING 6900 ZZ
238	P8622238	ECCENT PULLEY SHAFT
239	PSB32	CAP SCREW ¼"-20 X 1¼"
240	P8622240	SPECIAL NUT
241	P8622241	BEARING BASE
242	P8621242	RESIST BASE
243	P8621243	TABLE FIX SHAFT
244	P8621244	SPRING
245	P8621245	TABLE FIX SPRING SHFT
246	PRP02M	PIN 3 X 16MM
247	PSB62	CAP SCREW ¼"-20 X 1½"
248	P8622248	SPACER
249	P8622249	ORBIT GUIDE
250	P8622250	KNOB
251	P8621251	PIVOT

# WARRANTY AND RETURNS

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Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

# WARRANTY CARD

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone Number \_\_\_\_\_ E-Mail \_\_\_\_\_ FAX \_\_\_\_\_  
MODEL # G8622 Tilting Spindle Sliding Table Shaper Order \_\_\_\_\_

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. Of course, all information is strictly confidential.

- How did you learn about us?  
 Advertisement  Friend  
 Catalog  World Wide Web  
 Other \_\_\_\_\_
- Which of the following magazines do you subscribe to.  
 American Woodworker  Practical Homeowner  
 Cabinetmaker  Shop Notes  
 Family Handyman  Today's Homeowner  
 Fine Homebuilding  WOOD  
 Fine Woodworking  Wooden Boat  
 Home Handyman  Woodshop News  
 Journal of Light Construction  Woodsmith  
 Old House Journal  Woodwork  
 Popular Mechanics  Woodworker  
 Popular Science  Woodworker's Journal  
 Popular Woodworking  Workbench  
 Other \_\_\_\_\_
- Which of the following woodworking/remodeling shows do you watch?  
 Backyard America  The New Yankee Workshop  
 Home Time  This Old House  
 The American Woodworker  Woodwright's Shop  
 Other \_\_\_\_\_
- What is your annual household income?  
 \$20,000-\$29,999  \$60,000-\$69,999  
 \$30,000-\$39,999  \$70,000-\$79,999  
 \$40,000-\$49,999  \$80,000-\$89,999  
 \$50,000-\$59,999  \$90,000 +
- What is your age group?  
 20-29  50-59  
 30-39  60-69  
 40-49  70 +
- How long have you been a woodworker?  
 0 - 2 Years  8 - 20 Years  
 2 - 8 Years  20+ Years
- How would you rank your woodworking skills?  
 Simple  Advanced  
 Intermediate  Master Craftsman
- What stationary woodworking tools do you own? Check all that apply.  
 Air Compressor  Panel Saw  
 Band Saw  Planer  
 Drill Press  Power Feeder  
 Drum Sander  Radial Arm Saw  
 Dust Collector  Shaper  
 Horizontal Boring Machine  Spindle Sander  
 Jointer  Table Saw  
 Lathe  Vacuum Veneer Press  
 Mortiser  Wide Belt Sander  
 Other \_\_\_\_\_
- How many of your woodworking machines are Grizzly? \_\_\_\_\_
- Which benchtop tools do you own? Check all that apply.  
 1" x 42" Belt Sander  6" - 8" Grinder  
 5" - 8" Drill Press  Mini Lathe  
 8" Table Saw  10" - 12" Thickness Planer  
 8" - 10" Bandsaw  Scroll Saw  
 Disc/Belt Sander  Spindle/Belt Sander  
 Mini Jointer  
 Other \_\_\_\_\_
- How many of the machines checked above are Grizzly? \_\_\_\_\_
- Which portable/hand held power tools do you own? Check all that apply.  
 Belt Sander  Orbital Sander  
 Biscuit Joiner  Palm Sander  
 Circular Saw  Portable Planer  
 Detail Sander  Saber Saw  
 Drill/Driver  Reciprocating Saw  
 Miter Saw  Router  
 Other \_\_\_\_\_
- What machines/supplies would you like Grizzly Industrial to carry?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What new accessories would you like Grizzly Industrial to carry?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What other companies do you purchase your tools and supplies from?  
\_\_\_\_\_  
\_\_\_\_\_
- Do you think your purchase represents good value?  
 Yes  No
- Would you recommend Grizzly Industrial to a friend?  
 Yes  No
- Would you allow us to use your name as a reference for Grizzly customers in your area? **Note: We never use names more than three times.**  
 Yes  No
- Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

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Place  
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**GRIZZLY INDUSTRIAL, INC.**  
**P.O. BOX 2069**  
**BELLINGHAM, WA 98227-2069**



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